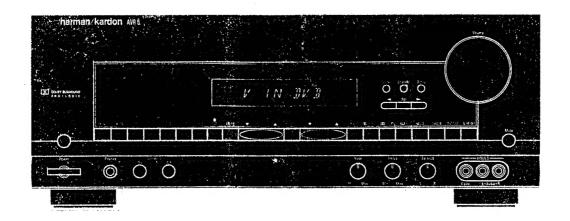
The Harman Kardon

Model AVR5/ AVR18RDS

Manual A

AUDIO AND VIDEO RECEIVER

Technical Manual



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harman/ kardon

Parts and Service Office 250 Crossways Park Dr, Woodbury, N.Y. 11797 1112 AVR5/AVR18RDS 1200 Printed in Japan

SPECIFICATIONS

~ LIT		SECTION
 1 1/1($\Lambda N D$	CEC. HUM

THOM PAIN OLUME		
	Nominal	Limit
Continuous Power Output		
(STEREO MODE), Input: CD	≥50W	≥45W
THD: 0.08%, 80hms		
Both Channel Driven (20Hz - 20Hz)		
(SURROUND MODE) THD: 0.3%, 80hms, 1KHz	≥40W	≥35 W
THD at 50W, 80hms, Input: CD		
20Hz	≤0.05%	≤0.08%
1KHz	≤0.05% ≤0.05%	≤0.08% ≤0.08%
20KHz	≤0.05%	≤0.08%
IM Distortion at 50W, 8ohms, Vol. Max		
	≤0.05%	≤0.08%
Input Sensitivity for Rated Power Output	, ,	
Tape Monitor/ CD/ DVD Video 1/ Video 2/ Video 3/ 6-CH In	200mV	150-250mV
S/N Ratio Input Shorted at 1KHz 1W Out	200mV	150-250mV
CD CD	>95dB	>90dB
Tone Control	≥3000	≥3000
Bass: 100Hz	+10dB	+10±2dB
	- 10dB	-10±2dB
Treble: 10Hz	+10dB	+10±2dB
Francisco December 14 AdD	- 10dB	- 10±2dB
Frequency Response at -3dB Mode: Stereo, Ref: 1KHz, 10Hz-120KH	- 15U- 100KU-	
Channel Crosstalk Input Shorted by 1Kol		
100Hz	≥60dB	>52dB
1KHz	≥60dB	≥52dB ≥52dB
10KHz	≥50dB	≥42dB

CENTER AMP SECTION

RMS Output Power	Nominal	Limit
THD (0.05%, 80hms, 1KHz) Only Center Channel Driven	≥40W	≥35W
S/N Ratio (Input Level: 350mV) Input shorted, IHF-A WTD	≥70dB	≥65dB
Frequency Response at-3dB 8ohms, Dolby Pro-Logic	40Hz-30KHz	60Hz-20KHz

REAR AMP SECTION

	Nominal	Limit
RMS Output Power		
THD (0.7%, 8ohms, 1KHz)	≥40W	≥35W
Only Rear Channel Driven		
S/N Ratio (Input shorted, IHF-A WTD)	≥63dB	>55dB
Delay: 20ms, Input Level: 350mV		
Frequency Response at-3dB		
8ohms, Dolby Pro-Logic	80Hz-7KHz	100Hz-6KHz

VIDEO AMP SECTION

	Nominal	Limit
Input Sensitivity/Impedance (DVD, VIDEO1, VIDEO2, VIDEO3) Output Level/Impedance	1Vp-p/75 Ω	±1dB
VIDEO1, Monitor Frequency Response at-3dB	1Vp-p/75 Ω DC-8MHz	±1dB DC-6MHz

FM SECTION

02011011		
	Nominal	Limit
Tuning Cover Range		
USA/ Canada: 100KHz STEP	87.50-108.00MHz	•
Europe : 50KHz STEP	87.50-108.00MHz	
Mono Usable Sensitivity(75ohms Input, 9	98MHz)	
	≤12.2dbf	\leq 17.3dbf
Image Rejection (at 98MHz)		
USA/Canada	≥40dB	≥35dB
Europe	≥70dB	≥65dB
IF Rejection (at 98MHz)	≥80dB	≥70dB
50dB Quieting Sensitivity (at 98MHz, 100)% MOD.)	
IHF Band Pass Filter		
Stereo	≤41.2dbf	≤47.3dbf
Distortion (1KHz, 100% MOD. at 98MHz, 1HF Band Pass Filter	, 65dbt input)	
Mono	≤0.3%	≤0.5%
S/N Ratio (500 Input, 100% MOD. at 98N	ИHz)	
IHF Band Pass Filter		
Stereo	≥65dB	≥60dB
Frequency Response(-3dB)	0011 451411	
USA/Canada De-Emphasis: 75 µs	20Hz-15KHz	40Hz-14KHz
Europe De-Emphasis: 50µs AM suppression at 98MHz	20Hz-15KHz	40Hz-14KHz
AW Suppression at 90M112	≥52dB	> 4740
Muting threshold (at 98MHz)	35.2dbf	≥47dB 31.2-39.2dbf
Overload Distortion at 98MHz	0.3%	1%
Capture Ratio at 65dbf	<1.5dB	≤2.5dB
Stereo Separation (at 98MHz, 100% MO		≥2.500
IHF Band Pass Filter	≥40dB	≥30dB
1KHz		
Tape out Level (at 98MHz)		
	500mV	350-650mV

AM SECTION

	Nominal	Limit
Tuning Cover Range (MW)		
USA/ Canada: 10KHz STEP	520-1710MHz	
Other : 9KHz STEP	522-1611MHz	
Usable Sensitivity		
999/ 990KHz	≤500₩/m	≤1000&/m
Image Rejection (at 999KHz)	>35dB	≥30dB
AGC Figure of Merit (From 100mV/m a		
	≥55dB	≥50dB
Distortion (999/1000Hz, 30% MOD. 50		2000
	≤1.0%	≤1.5%
Frequency Response (999/1000KHz) a	it -6dB	_
	80Hz-2.3KHz	100Hz-2KHz
Selectivity (at 999/1000Hz)		
9KHz/ 10KHz	≥25dB	≥20dB
S/N Ratio (999/k1000KHz, With Antenn		
	≥40dB	≥35dB
Overload Distortion at 999/1000KHz	24000	25300
	≥1%	≥1.5%
TAPE Output Level at 999/1000KH (5n		21.5%
The E obspace condition of the Control of the Contr	ivin input)	

GENERAL

	Nominal	Limit
Power Consumption		
At Rated Power All Channel Driven		
USA/Canada	195W (1/8Pmax)	160-200W
Europe	550W `	500-600W
Idling at Minimum Volume Control		
USA/Canada	70W	50-90W
Europe	70W	50-90W
Power Supplies:		
USA/Canada	AC120V, 60Hz	
Europe	AC230V, 50Hz	
Dimensions (W×H×D)		
inches	17.3×5.5×15	
mm	440×140×380	
Weight(lbs/ kgs)	28.8/ 13.1	

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

- Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off
 any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a
 commercially available discharging wrist strap device, which should be removed for potential shock reasons
 prior to applying power to the unit under test.
- 2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- 3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
- 4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
- 5. Do not use freon-propelled chemicals. These can generate electrical change sufficient to damage ES devices.
- 6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
- Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
 - CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
- 8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together or your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing.

Components identified with the IEC symbol \triangle in the parts list are of special significance to safety. When replacing a component identified with \triangle , use only the replacement parts designated, or parts with the same ratings or resistance, wattage, or voltage that are designated in the parts list in this manual. Leakage - current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A.)

Before returning the unit to the user, perform the following safety checks:

- Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
- Be sure that any protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. Which were removed for servicing are properly reinstalled.
- 3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows: Plug the power cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 Ohm, 10-watt resistor paralleled by a 0.15µF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 Ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.)

SIMPSON MODEL 229 ETC. FOR LEAKAGE TEST TO EACH EXPOSED TO AC GROUND SUCH METAL SURFACE OF AS WATER PIPE, BX CABLE. GROUND HIGH **UNIT UNDER TEST** CONDUIT, ETC. **VOLTAGE** LEAD OR + LEAD VTVM O AC SCALEO 1.5k 10W 0.15µ F **TEST PROBE** TO EXPOSED CONNECT TO KNOWN METAL PARTS EARTH GROUND

A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.

ALIGNMENT PROCEDURES

1. Test Equipment Required

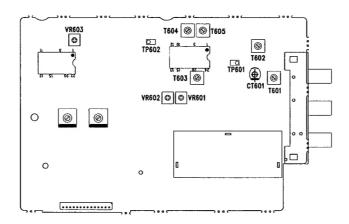
- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- · Stereo Modulator

- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

AVR5/AVR18RDS

Note: Disconnect external FM antenna prior to alignment

2. Alignment and Test Points

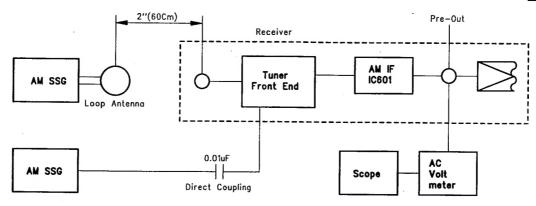


3. AM IF and RF Alignment

Preparation

- 1. Output of signal Generator should not be higher than necessary to obtain an optimum output reading.
- 2. Signal Generator Modulation: 30%
- 3. Switch: Press to AM.

Step	Signal Generator Frequency	Receiver Frequency on the Display	Equipment Connection	Adjustment Point	Adjust for
1	990KHz	520KHz	DC Voltmeter	T602	1.2V reading
	(400Hz, Mod.)		TP601		Maximum
2	600KHz	600KHz	AC Voltmeter to	T601	reading
	(400Hz, Mod.)		TAPE OUT jack		Maximum
3	1400KHz	400KHz	AC Voltmeter to	CT601	reading
	(400Hz, Mod.)	·	TAPE OUT jack		Maximum
4	990KHz	990KHz	AC Voltmeter to	T603	reading
	(400Hz, Mod.)		TAPE OUT jack		FL display "TUNED"
5	990KHz	990KHz	Same as	VR601	Indicator on receiver
	(400Hz, Mod.)		Step 1.		with AM SSG Output
					level of 800 μV/m



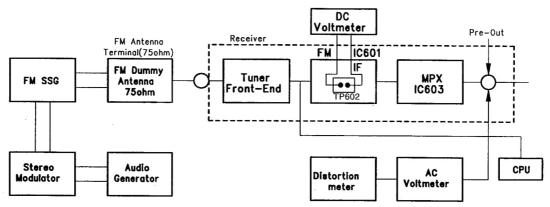
AM Alignment Connection

4. FM IF Alignment

Preparation

- 1. Signal Generator output should be no higher than necessary to obtain an optimum output reading.
- 2. Switch Press to FM.
- 3. Signal generator deviation: 75KHz (AVR5) 40KHz (AVR18RDS)

Step	Signal Generator Frequency	Receiver Frequency on the Display	Equipment Connection	Adjustment Point	Adjust for
	98.0MHz (1KHz, Mod.)	98.0MHz	DC Voltmeter to TP 602	T604	Zero reading on DC voltmeter
2	98.0MHz (1KHz, Mod.)	98.0MHz	Distortion meter to TAPE OUT jack	T605	Minimum distortion
3	98.0MHz (1KHz, Mod.)	98.0MHz	Same as Step 1	VR602	FL display "TUNED" Indication on receiver with FM SSG output level of 35.2 dbf



FM RF/IF and MPX Alignment Connection

5. MPX Alignment, SM Alignment

Preparation

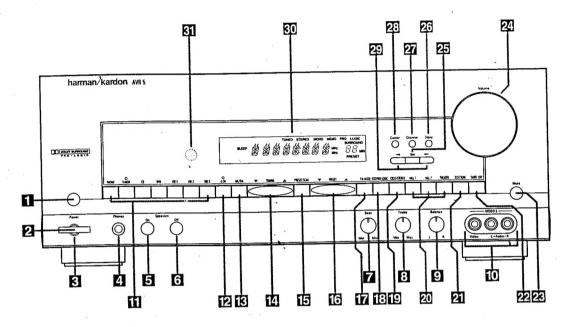
- 1. Switch: Press to FM.
- 2. Tuner for 98MHz on band.
- 3. Signal Generator output level : 1000 μ V.
- 4. Deviation: 75 KHz (AVR5) 40 KHz (AVR18RDS) at 100% modulation of composite signal.
- 5. Connect Signal Generator to FM antenna terminal through FM dummy antenna (75 Ω).

Step	19KHz Modulation Level	Signal Generator Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	7.5KHz Mod.	Composite to	AC voltmeter to TAPE	-	Adjust for about 450mV of
		channel 1KHz R	OUT jack of R channel		audio output
2	7.5KHz Mod.	Composite to	AC voltmeter to TAPE	VR603	AC voltmeter reading should
		channel 1KHz L	OUT jack of R channel		be at least 40dBbelow.
3	7.5KHz Mod.	Composite to	AC voltmeter to TAPE	VR603	Same as Step 2.
		channel 1KHz R	OUT jack of L channel		

If you could not obtain -40dB reading in Steps 2 and 3 (compared with Step 1), read just VR603 until you obtain -40dB readings for both steps 2 and 3. Nominal is -45dB.

AVR5/AVR18RDS

Front Panel Controls



Main Power Switch: Press this button to apply power to the AVR5/AVR18RDS. When the switch is pressed in the unit is placed in a Standby mode, as indicated by the amber LED surrounding the System Power Control 2. This button MUST be pressed in to operate the unit. To turn the unit off and prevent the use of the remote control, this switch should be pressed until it pops out from the front panel so that the word "OFF" may be read at the top of the switch.

NOTE: In normal operation this switch is left in the "ON" position.

- System Power Control: When the Main Power Switch 1 is "ON," press this button to turn on the AVR5/AVR18RDS; press it again to turn the unit off. Note that the Power Indicator surrounding the switch 3 will turn green when the unit is on.
- Flower Indicator: This LED will illuminate in amber when the unit is in the Standby mode to signal that the unit is ready to be turned on. When the unit is in operation, the indicator will turn green. A red indicator means that the unit is in the Protect mode, and should be turned off and then checked for a possible speaker wire short circuit.
- Meadphone Jack: This jack may be used to listen to the AVR5/AVR18RDS's output through a pair of headphones. Be Certain that the headphones have a standard 1/4" stereo phone plug.

- Bass Control: Turn this control to modify the low-frequency output of the left/right channels by as much as ±10dB. Set this control to a suitable position for your taste and room acquistics
- Speakers ON Button: This button turns the speakers on for normal listening.
- Speakers OFF Button: This button turns the speakers off for private listening when the headphones are in use
- 3 Treble Control: Turn this control to modify the high-frequency output of the left/right channels by as much as ±10dB. Set this control to a suitable position for your taste and room acoustics.
- **9** Balance Control: Turn this control to change the relative volume for the front left/right channels.

NOTE: For proper operation of the surround modes this control should be at the midpoint, or "12 o'clock" position.

- [10] Video 3 Inputs: These audio/video inputs may be used for temporary connection of video games, camcorders, digital still cameras or portable audio products. To select a source connected to these jacks, press the Vid 3 Input Selector [1].
- III Input Selectors: Press one of these buttons to select or change the input source. If the unit is in the Standby mode, pressing one of these buttons will also turn the AVR5/AVR18RDS on.

- ☑ 6-Channel Direct Selector:
 Press this button to select the output of an optional, external 6-channel decoder connected to the 6 Ch Direct inputs ⑥ as the listening source.
- [E] AMFM: Press this button to select the tuner as the AVR5/ AVR18RDS's input source. When it is first pressed the last station tuned will be heard. Press it again to change between AM and FM bands.
- Tuning Button: Press the left side of the button to tune lower frequency stations and the right side of the button to tune higher frequency stations. When a station with a strong signal is tuned, the TUNED indicator will illuminate in the Information Display (1/2 second) press of the button will manually tune to the next frequency increment, while pressing and holding the button for a longer period will automatically tune to the next station with a signal strong enough for acceptable reception.
- IS Preset Scan: Press this button to automatically scan through the stations that have been programmed in the AVR5/ AVR18RDS's memory. The tuner will play five seconds of each station before moving to the next preset station. To stop the scan when the desired station is heard, press the button again.
- **The Preset Stations Selector:** Press this button to select stations that have been entered into the preset memory.

- TFM Mode: Press this button to select the stereo or mono mode for FM tuning. In the STEREO mode a Stereo indicator will illuminate in the Information Display 10, and stereo reception will be provided when stations are transmitting stereo signals. In the MONO mode the left and right signals from stereo broadcasts will be mixed together and reproduced through all channels. Select MONO for better reception of weak signals.
- Dolby Pro Logic Selector: Press this button to select the Dolby Pro Logic surround mode when listening to an analog program that is encoded with surround-sound information.
- Dolby 3 Stereo Selector: Press this button to select the Dolby 3 Stereo listening mode. This mode is used primarily when a program has surround information when a center channel speaker, but no surround speakers, is installed.
- Analog Surround Mode Selectors: Press one of these buttons to select the analog surround modes. These modes may be used with any analog program source to create a pleasing surround effect.
- Test Tone: Press this button to begin the sequence of steps used to set the AVR5/AVR18RDS output levels. When this button is pressed, a test tone will replace the currently selected listening source and the Information Display.

test tone appears. The test tone will automatically switch to the next channel after three seconds.

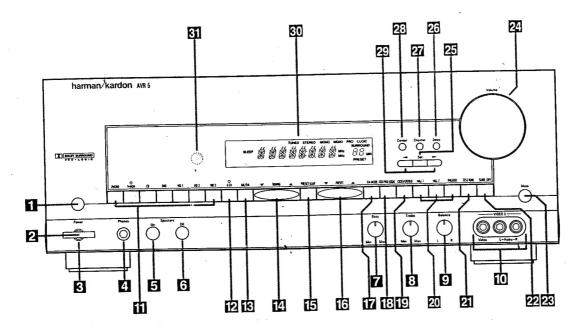
- **22** Surround Off: Press this button to turn off all surround processing, and to listen to a program in traditional stereo from the left front and right front speakers only.
- Mute: Press this button to momentarily silence the speaker output of the AVR5/ AVR18RDS.
- 22 Volume Control: Turn the knob clockwise to increase volume, counterclockwise to decrease the volume.
- ₹ Set Button: This button has two functions. If this button is pressed while in normal operation, the Information Display ∰ will show the Surround mode for three seconds. This button is also used to enter an output level setting when using the Test Tone and Selector Buttons ∰ ₹
- Delay: Press this button to enter delay time settings.
- **Ex** Channel Select: Press this button during normal operation, or during the Test Tone operation, to begin the process that adjusts the output levels.
- NOTE: Be sure to select the Dolby Pro Logic surround mode before calibration so that all five channels will be adjusted.

Press this button to select the center channel speaker. When it is first pressed, the Information Display will show the currently selected speaker type. Press it again to show another speaker type or no speaker option (this option is available with the Dolby Pro Logic surround mode only).

Release this button when a desired selection is shown in the **Information Display**

- Selector Buttons: Press these buttons to adjust the AVR5/AVR18RDS output levels. You may use these buttons while you are checking the output levels by pressing either the Test Tone Button 21 or the Channel Select Button 27
- NOTE: Be sure to press the **Set Button** to enter a new output level each time you adjust the channel.
- Information Display: This display delivers messages and status indications to help you operate the receiver.
- Eii Remote Sensor Window: The sensor behind this window.receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.

Front Panel Controls



Main Power Switch: Press this button to apply power to the AVR5/AVR18RDS. When the switch is pressed in the unit is placed in a Standby mode, as indicated by the amber LED surrounding the System Power Control 2. This button MUST be pressed in to operate the unit. To turn the unit off and prevent the use of the remote control, this switch should be pressed until it pops out from the front panel so that the word "OFF" may be read at the top of the switch.

NOTE: In normal operation this switch is left in the "ON" position.

- System Power Control: When the Main Power Switch 1 is "ON," press this button to turn on the AVR5/AVR18RDS; press it again to turn the unit off. Note that the Power Indicator surrounding the switch 3 will turn green when the unit is on.
- Power Indicator: This LED will illuminate in amber when the unit is in the Standby mode to signal that the unit is ready to be turned on. When the unit is in operation, the indicator will turn green. A red indicator means that the unit is in the Protect mode, and should be turned off and then checked for a possible speaker wire short circuit.
- Li Headphone Jack: This jack may be used to listen to the AVR5/AVR18RDS's output through a pair of headphones. Be Certain that the headphones have a standard 1/4" stereo phone plug.

- Bass Control: Turn this control to modify the low-frequency output of the left/right channels by as much as ±10dB. Set this control to a suitable position for your taste and room, acquisities
- **Speakers ON Button:** This button turns the speakers on for normal listening.
- **6** Speakers OFF Button: This button turns the speakers off for private listening when the headphones are in use.
- Treble Control: Turn this control to modify the high-frequency output of the left/right channels by as much as ±10dB. Set this control to a suitable position for your taste and room acoustics.
- Balance Control: Turn this control to change the relative volume for the front left/right channels.

NOTE: For proper operation of the surround modes this control should be at the midpoint, or "12 o'clock" position.

- iii Video 3 Inputs: These audio/video inputs may be used for temporary connection of video games, camcorders, digital still cameras or portable audio products. To select a source connected to these jacks, press the Vid 3 Input Selector iii.
- Input Selectors: Press one of these buttons to select or change the input source. If the unit is in the Standby mode, pressing one of these buttons will also turn the AVR5/AVR18RDS on.

- ☑ 6-Channel Direct Selector:
 Press this button to select the output of an optional, external 6-channel decoder connected to the 6 Ch Direct inputs ⑤ as the listening source.
- **E** AWFM: Press this button to select the tuner as the AVR5/ AVR18RDS's input source. When it is first pressed the last station tuned will be heard. Press it again to change between AM and FM bands.
- Tuning Button: Press the left side of the button to tune lower frequency stations and the right side of the button to tune higher frequency stations. When a station with a strong signal is tuned, the TUNED indicator will illuminate in the Information Display To. A brief (1/2 second) press of the button will manually tune to the next frequency increment, while pressing and holding the button for a longer period will automatically tune to the next station with a signal strong enough for acceptable reception.
- Freset Scan: Press this button to automatically scan through the stations that have been programmed in the AVR5/ AVR18RDS's memory. The tuner will play five seconds of each station before moving to the next preset station. To stop the scan when the desired station is heard, press the button again.
- **Tellific Preset Stations Selector:** Press this button to select stations that have been entered into the preset memory.

IT FM Mode: Press this button to select the stereo or mono mode for FM tuning. In the STEREO mode a Stereo indicator will illuminate in the Information Display III, and stereo reception will be provided when stations are transmitting stereo signals. In the MONO mode the left and right signals from stereo broadcasts will be mixed together and reproduced through all channels. Select MONO for better reception of weak signals.

[3] Dolby Pro Logic Selector: Press this button to select the Dolby Pro Logic surround mode when listening to an analog program that is encoded with surround-sound information.

Dolby 3 Stereo Selector: Press this button to select the Dolby 3 Stereo listening mode. This mode is used primarily when a program has surround information when a center channel speaker, but no surround speakers, is installed.

2n Analog Surround Mode Selectors: Press one of these buttons to select the analog surround modes. These modes may be used with any analog program source to create a pleasing surround effect.

Test Tone: Press this button to begin the sequence of steps used to set the AVR5/AVR18RDS output levels. When this button is pressed, a test tone will replace the currently selected listening source and the Information Display. will show the channel where the

test tone appears. The test tone will automatically switch to the next channel after three seconds.

22 Surround Off: Press this button to turn off all surround processing, and to listen to a program in traditional stereo from the left front and right front speakers only.

Mute: Press this button to momentarily silence the speaker output of the AVR5/ AVR18RDS.

24 Volume Control: Turn the knob clockwise to increase volume, counterclockwise to decrease the volume.

23 Set Button: This button has two functions. If this button is pressed while in normal operation, the Information Display [1] will show the Surround mode for three seconds. This button is also used to enter an output level setting when using the Test Tone and Selector Buttons [2] [2].

Delay: Press this button to enter delay time settings.

27 Channel Select: Press this button during normal operation, or during the Test Tone operation, to begin the process that adjusts the output levels.

NOTE: Be sure to select the Dolby Pro Logic surround mode before calibration so that all five channels will be adjusted. 23 Center Speaker Select Button: Press this button to select the center channel speaker. When it is first pressed, the Information Display 20 will show the currently selected speaker type. Press it again to show another speaker type or no speaker option (this option is available with the Dolby Pro Logic surround mode only).

Release this button when a desired selection is shown in the **Information Dispfay 1**.

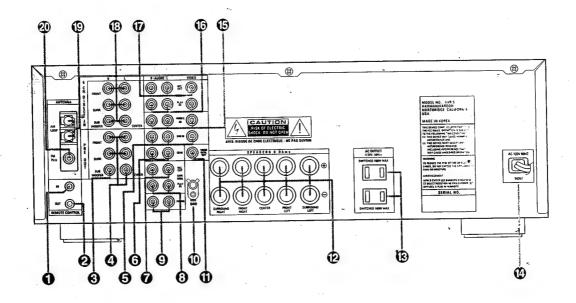
Selector Buttons: Press these buttons to adjust the AVR5/AVR18RDS output levels. You may use these buttons while you are checking the output levels by pressing either the Test Tone Button 21 or the Channel Select Button 27.

NOTE: Be sure to press the **Set Button**To enter a new output level each time you adjust the channel.

Information Display: This display delivers messages and status indications to help you operate the receiver.

Ell Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.

Rear Panel Connections



- Remote IR In: If the AVR5/ AVR18RDS front panel IR sensor is blocked due to cabinet doors or other obstructions, an external IR sensor may be used. Connect the output of the sensor to this jack.
- ❷ Remote IR Out: This connection permits the IR sensor in the receiver to serve other remote controlled devices. Connect this jack to the "IR IN" jack on Harman Kardon or other compatible equipment.
- Subwoofer Pre-Out: Connect this jack to the line level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input.
- O Pre-Outs: If external power amplifiers are used for any channels, connect them to these jacks.
- **6 DVD Inputs:** Connect the analog audio outputs and composite video output of a DVD or LV player to these jacks.
- **6 CD Inputs:** Connect these jacks to the output of a compact disc player or CD changer.
- **√ Tape Monitor Out:** Connect these jacks to the RECORD/INPUT jacks of an audio recorder.
- Tape Monitor In: Connect these jacks to the PLAY/OUT jacks of an audio recorder.

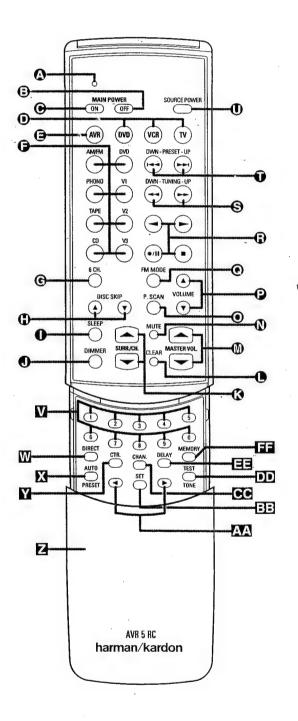
- Phono Inputs: Connect the outputs of your turntable or tone arm to these jacks. Note that only Moving Magnet (MM) type cartridges may be used.
- **(h)** Phono Ground: Connect the ground wire frem a turntable to this terminal to reduce system hum.
- TV Monitor Video Output: Connect this jack to the standard (composite) video input of a TV monitor or video projector to view the output of any standard video source selected by the receiver's video switcher.
- ② Speaker Terminals: Connect these terminals to the appropriate terminals on your speakers.
- ® Switched AC Outlets: These outlets may be used to power any device that you wish to have turn on when the unit is turned on with the System Power Control switch 2.

NOTE: The power consumption of the device plugged into each of these outlets should not exceed 100 watts...

(2) Power Cable: Connect the AC plug to a non-switched AC wall output

- (a) Video 2 Inputs: Connect these jacks to the audio and video outputs of a TV Tuner, Cable TV converter box, satellite receiver or any other audio/video source.
- (i) Video 1 Inputs: Connect these jacks to the audio and video PLAY/OUT jacks of a VCR.
- ∇ Video Outputs 1: Connect these jacks to the audio and video RECORD/IN jacks of a VCR.
- 6-Channel Direct Inputs: If an external digital audio decoder is used for 5.1 (Dolby Digital, DTS, etc.) audio, connect the outputs of that decoder to these terminals.
- AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the AM and GND terminals in accordance with the instructions supplied with the antenna.
- FM Antenna: Connect an indoor or external FM antenna to this terminal.

Remote Control Functions



IMPORTANT NOTE: The AVR5/ AVR18RDS's remote may be programmed to control up to three additional devices, including the AVR5/ AVR18RDS. Before using the remote, it is important to remember to press the that corresponds to the unit you wish to operate. The remote is capable of operating a wide variety of products using the control codes that are part of the remote.

It is also important to remember that many of the buttons on the remote take on different functions, depending on the product selected using the Device Control Selectors. The descriptions shown here primarily detail the functions of the remote when it is used to operate the AVR5/ AVRIBROS.

A LED Indicator: This indicator will flash whenever a button is pressed to confirm that a remote command is being transmitted. It will also flash while the remote is being programmed to assist in entering or reading remote codes. Note that this is NOT a standard remote button, and has no function when pressed.

(3) Main Power Off: When the AVR5/ AVR18RDS is turned on, press this button to place it in the Standby mode. Note that in this condition, the unit is still connect to

Main Power On: When the AVR5/ AVR18RDS is in the Standby mode, as indicated by the Power Indicator [3] glowing green, press this button to turn the AVR5 on.

 Device Control Selectors: Press one of these buttons to use the remote to control the functions of another audio/video device. Note that the button will briefly turn red after it has been pressed to confirm your selection.

AVR Selector: Press this button to use the remote control for operation of the AVR5/AVR18RDS. Note that the button will briefly turn red after is has beep pressed to confirm your selection.

(a) Source Selectors: Press these buttons to select an input source for the AVR5/ AVR18RDS. The AM/FM button is also used to switch between frequency bands when the tuner is in use.

NOTE: Pressing one of these buttons selects the source only. In order to control the actual source machine using the remote you must press the Device Control Selector button (3) for the desired product.

6-Channel Direct: Press this button to use the output of an optional. external digital decoder as the AVR5/ AVR18RDS's input source.

Disc Skip: These buttons do not have any functions when controlling the AVR5/AVR18RDS, but they operate the Disc Skip functions of compatible Harman Kardon compact disc changers. The Disc Skip Up button will also function as the Open/Close button for certain DVD and LD equipment when the remote is properly programmed to control them

 Sleep Button: Press this button toplace the unit in the Sleep mode. After the time shown in the display, the AVR5/ AVR18RDS will automatically go into the Standby mode. Each press of the button changes the time until turn-off in the following order:

 \rightarrow 90 \rightarrow 80 \rightarrow 70 \rightarrow 60 \rightarrow 50 \rightarrow min

Dimmer: Press this button once to reduce the brightness of the front panel display to half the normal intensity. Press it again to turn the front panel display completely off. When the display is completely off. press the button to return to normal brightness

(Surround/Channel Selectors: Press these buttons to check or change the current Surround mode. When either one of these two buttons is first pressed, the Information Display (1) will show the current Surround mode. Press either button again to change the current Surround mode by scrolling the list of available modes as they appear in the Information Display 30. When the remote is being used to control a VCR or TV set, these buttons are used to change channels. These buttons are also used when the remote is being programmed to "find" the correct codes via the

Clear Button: This button is used to clear preset memory information for the AVR5/ AVR18RDS's tuner.

Master Volume: Press these buttons to raise or lower the AVR5/AVR18RDS's volume. These button are also used to obtain the IR code numbers for a device that has been programmed into the remote.

Mute: Press this button to momentarily silence the AVR5/ AVR18RDS, When the AVR5/ AVR18RDS remote is being programmed to operate another device, this button is pressed with the

Device Control Selector button

to begin the programming process

automatically scan through the list of

stations that are programmed into the

preset station will play for five seconds

AVR5/ AVR18RDS's tuner memory.

When the button is pressed, each

before the next station is selected.

desired station is heard to stop the

P Volume: When the remote has

compatible device, these buttons may

be used to raise of lower the volume of

a TV. Note that they DO NOT change

the volume of the AVR5/ AVR18RDS.

That is done with the Master Volume

● FM Mode: Press this button when

the tuner is in use in the FM band to

switch to monaural reception if the

station is weak and noisy. When the

MONO indicator is on. FM reception

will be monaural regardless of the

Transport Controls: These but-

Forward, Play Reverse, Stop, Pause

and Record functions on compatible

changers and cassette tape decks.

When the remote has been pro-

grammed to control an external

device, such as a VCR, DVD or LD;

these buttons may be used to con-

trol the standard Forward, Reverse,

Stop and Pause functions, as well.

S Tuning Up/Down: When the tuner

is in use, these buttons will tune up or

down through the selected frequency

band. A brief (1/2 second) press of

the button will manually tune to the

pressing and holding the button for

tune to the next station with a signal

strong enough for acceptable recep-

tion. These buttons will also control

Fast Forward and Fast Reverse (or

changers and cassette tape decks.

as well as controlling these functions.

on a DVD or VCR, if the remote has

Rewind) for compatible Harman

Kardon compact disc players/

been properly programmed.

Preset Up/ Down: When the

tuner is in use, these buttons scroll

through the stations that have been

also control the track Skip Up and Down on compatible Harman Kardon

programmed into the AVR5/ AVR18RDS's memory. These buttons

a longer period will automatically

next frequency increment, while

Harman Kardon compact disc players/

tons are used to control Play, Play

strength of the tuned FM station.

been properly programmed for a

Press the button again when the

preset scan.

button .

O P-Scan: Press this button to

① Source Power: When the remote has been properly programmed to control another product, and the Device Control Selector (1) for that device has been pressed, press this button to turn the product on or off.

compact disc players/ changers as

on a DVD if the remote has been

properly programmed.

well as controlling the similar functions

V Numeric Keys: These buttons serve as a ten-button numeric keypad to enter tuner preset positions They are also to be used to select channel numbers when TV or VCR has been selected on the remote, or to select track numbers on a DVD player, depending on how the remote has been programmed.

W Direct: Press this button to select a radio station by entering its frequency using the Numeric Keys M.

X Auto Preset: When the tuner and FM band have been selected, this button may be used to automatically program the tuner presets for all active stations. To start the auto preset scan, press and hold the button. Note that the MEMO and PRESET indicators will flash. After a few seconds. the tuner will start to "look" for active stations, as shown by increasing frequency numbers in the Information Display. Release the button and note that the tuner will briefly stop at each active station and add a preset number to the memory. If the FM tuner found less the 30 FM stations with acceptable signal strength, the Auto Preset tuning will scan two more cycles or until the remaining vacant preset memory spaces have been filled with those found in the first scan. The scan will stop when all 30 preset memory spaces have been filled or when three scans through the band have been completed.

Center: Use this button to configure the AVR5/ AVR18RDS for the type of center channel speaker being used.

Secondary Control Cover: This sliding cover normally is in the "up" position so that it hides the secondary controls. To access these controls, place your thumb on the small recessed area at the top center of the control, and gently press the cover down and towards you.

AA </ >
AA
AA
In the se buttons are used to change settings during the level output adjustments with either the test tone or an external audio source.

Set Button: This button has two functions. If this button is pressed while in normal operation. the Information Display (1) will show the Surround mode for three seconds. This button is also used to enter an output level setting when using the Test Tone and Selector buttons 21 29.

AVR5/AVR18RDS

Channel Button: Use this button to adjust the AVR5/ AVR18RDS's output levels using an external audio source, rather than the internal test signal generator. Each press of the button will select a channel for adjustment. To trim the output level use the **◄/**▶buttons

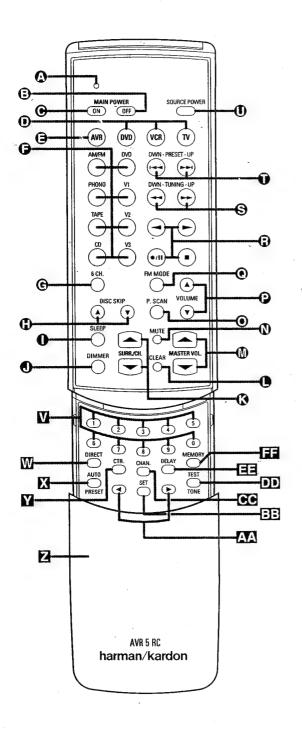
Test Tone: Press this button to: start the procedure for adjusting the AVR5/ AVR18RDS's output levels.

Delay: Press this button to change the AVR5/ AVR18RDS's delay settings. To change the settings, first make certain that the Pro Logic mode has been selected. Then, each press of the button will change the delay setting in the following order.

→ 15 ms → 20 ms → 30 ms →

FF Memory: Press this button to open a memory position that stores a preset location for the AVR5/ AVR18RDS's tuner.

Remote Control Functions



IMPORTANT NOTE: The AVR5/AVR18RDS's remote may be programmed to control up to three additional devices, including the AVR5/AVR18RDS. Before using the remote, it is important to remember to press the Device Control Selector button that corresponds to the unit you wish to operate. The remote is capable of operating a wide variety of products using the control codes that are part of the remote.

It is also important to remember that many of the buttons on the remote take on different functions, depending on the product selected using the Device Control Selectors. The descriptions shown here primarily detail the functions of the remote when it is used to operate the AVR5/AVR 18 ROS.

- ♠ LED Indicator: This indicator will flash whenever a button is pressed to confirm that a remote command is being transmitted. It will also flash while the remote is being programmed to assist in entering or reading remote codes. Note that this is NOT a standard remote button, and has no function when pressed.
- Main Power Off: When the AVR5/ AVR18RDS is turned on, press this button to place it in the Standby mode. Note that in this condition, the unit is still connect to AC Power.
- Main Power On: When the AVR5/AVR18RDS is in the Standby mode, as indicated by the Power Indicator
 green, press this button to turn the AVR5 on.
- Device Control Selectors: Press one of these buttons to use the remote to control the functions of another audio/video device. Note that the button will briefly turn red after it has been pressed to confirm your selection.
- ♠ AVR Selector: Press this button to use the remote control for operation of the AVR5/AVR18RDS. Note that the button will briefly turn red after is has beep pressed to confirm your selection.
- O Source Selectors: Press these buttons to select an input source for the AVR5/ AVR18RDS. The AWFM button is also used to switch between frequency bands when the tuner is in use.

NOTE: Pressing one of these buttons selects the source only. In order to control the actual source machine using the remote you must press the Device Control Selector button (a) for the desired product.

- **6-Channel Direct:** Press the button to use the output of an external digital decoder as the AVR18RDS's input source.
- Disc Skip: These buttons have any functions when cor the AVR5/AVR18RDS, but the operate the Disc Skip function compatible Harman Kardon compact disc changers. The Skip Up button will also funct the Open/Close button for ce DVD and LD equipment when remote is properly programming control them.
- Sleep Button: Press this be place the unit in the Sleep most the time shown in the display, AVR5/ AVR18RDS will autom go into the Standby mode. Ear of the button changes the time turn-off in the following order:

- Dimmer: Press this butto to reduce the brightness of t panel display to half the non intensity. Press it again to tur front panel display complete When the display is complet press the button to return to brightness.
- Surround/Channel Sele Press these buttons to check change the current Surround When either one of these two is first pressed, the Informat Display 30 will show the cur Surround mode. Press either again to change the current Surround mode by scrolling of available modes as they a in the Information Display When the remote is being us control a VCR or TV set, these tons are used to change cha These buttons are also used the remote is being program "find" the correct codes via t Search mode.
- Clear Button: This button is clear preset memory information AVR5/ AVR18RDS's tuner.
- Master Volume: Press the buttons to raise or lower the AVR5/AVR18RDS's volume. button are also used to obtain code numbers for a device that been programmed into the ron

et: Press this tput of an optional, der as the AVR5/ source.

se buttons do not when controlling DS, but they tip functions of a Kardon gers. The Disc also function as ton for certain ment when the

ress this button to Sleep mode. After e display, the will automatically mode. Each press s the time until ng order:

rogrammed to

this button once tness of the front if the normal gain to turn the completely off, s completely off, return to normal

nnel Selectors: to check or Surround mode. these two buttons Information. w the current ess either button current scrolling the list as they appear Display 🛐 being used to set, these butange channels. also used when programmed to des via the

is button is used to information for the tuner.

Press these wer the volume. These to obtain the IR device that has to the remote.

- Mute: Press this button to momentarily silence the AVR5/AVR18RDS. When the AVR5/AVR18RDS remote is being programmed to operate another device, this button is pressed with the Device Control Selector button to begin the programming process.
- P-Scan: Press this button to automatically scan through the list of stations that are programmed into the AVR5/ AVR18RDS's tuner memory. When the button is pressed, each preset station will play for five seconds before the next station is selected. Press the button again when the desired station is heard to stop the preset scan.
- P Volume: When the remote has been properly programmed for a compatible device, these buttons may be used to raise of lower the volume of a TV. Note that they DO NOT change the volume of the AVR5/ AVR18RDS. That is done with the Master Volume button.
- **© FM Mode:** Press this button when the tuner is in use in the FM band to switch to monaural reception if the station is weak and noisy. When the **MONO** indicator is on, FM reception will be monaural regardless of the strength of the tuned FM station.
- ☼ Transport Controls: These buttons are used to control Play, Play Forward, Play Reverse, Stop, Pause and Record functions on compatible Harman Kardon compact disc players/ changers and cassette tape decks. When the remote has been programmed to control an external device, such as a VCR, DVD or LD, these buttons may be used to control the standard Forward, Reverse, Stop and Pause functions, as well.
- ❸ Tuning Up/Down: When the tuner is in use, these buttons will tune up or down through the selected frequency band. A brief (1/2 second) press of the button will manually tune to the next frequency increment, while pressing and holding the button for a longer period will automatically tune to the next station with a signal strong enough for acceptable reception. These buttons will also control Fast Forward and Fast Reverse (or Rewind) for compatible Harman Kardon compact disc players/ changers and cassette tape decks, as well as controlling these functions on a DVD or VCR, if the remote has been properly programmed.
- Preset Up/ Down: When the tuner is in use, these buttons scroll through the stations that have been programmed into the AVR5/ AVR18RDS's memory. These buttons also control the track Skip Up and Down on compatible Harman Kardon

- compact disc players/ changers as well as controlling the similar functions on a DVD if the remote has been properly programmed.
- ① Source Power: When the remote has been properly programmed to control another product, and the Device Control Selector ① for that device has been pressed, press this button to turn the product on or off.
- ▼ Numeric Keys: These buttons serve as a ten-button numeric keypad to enter tuner preset positions. They are also to be used to select channel numbers when TV or VCR has been selected on the remote, or to select track numbers on a DVD player, depending on how the remote has been programmed.
- W Direct: Press this button to select a radio station by entering its frequency using the Numeric Keys ▼.
- X Auto Preset: When the tuner and M band have been selected, this button may be used to automatically program the tuner presets for all active stations. To start the auto preset scan, press and hold the button. Note that the **MEMO** and **PRESET** indicators will flash. After a few seconds, the tuner will start to "look" for active stations, as shown by increasing frequency numbers in the Information Display. Release the button and note that the tuner will briefly stop at each active station and add a preset number to the memory. If the FM tuner found less the 30 FM stations with acceptable signal strength, the Auto Preset tuning will scan two more cycles or until the remaining vacant preset memory spaces have been filled with those found in the first scan. The scan will stop when all 30 preset memory spaces have been filled or when three scans through the band have been completed.
- ▼ Center: Use this button to configure the AVR5/AVR18RDS for the type of center channel speaker being used.
- Secondary Control Cover: This sliding cover normally is in the "up" position so that it hides the secondary controls. To access these controls, place your thumb on the small recessed area at the top center of the control, and gently press the cover down and towards you.
- AA
 ■/N Buttons: These buttons are used to change settings during the level output adjustments with either the test tone or an external audio source.

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- Set Button: This button has two functions. If this button is pressed while in normal operation, the Information Display [1] will show the Surround mode for three seconds. This button is also used to enter an output level setting when using the Test Tone and Selector buttons [2] [25].
- Channel Button: Use this button to adjust the AVR5/ AVR18RDS's output levels using an external audio source, rather than the internal test signal generator. Each press of the button will select a channel for adjustment. To trim the output level use the ◀/▶buttons
- Test Tone: Press this button to start the procedure for adjusting the AVR5/ AVR18RDS's output levels.
- Delay: Press this button to change the AVR5/ AVR18RDS's delay settings. To change the settings, first make certain that the Pro Logic mode has been selected. Then, each press of the button will change the delay setting in the following order.

Memory: Press this button to open a memory position that stores a preset location for the AVR5/AVR18RDS's tuner.

CIRCUIT DESCRIPTION CPU(IC701): μ PD780204GF

1. Pin Description & Block Diagram

G10 G9 G8 G7 G6 G5 G4 G3 G2 G1 S1 S2 S3 S4 S5 S6 S7 S8	S9	S10	
100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 P80 P81 P82 P83 P84	82	81	E
+5V -1 Vdd +5V -1 Vdd	P87	80	- S11
KR4 - 2 P37	Vload	79	- Vload
KR3 - 3 P36	P90	78	- \$12/KS1
KR2 - 4 P35	P91	77	-S13/KS2
KR1 - 5 P34 P3.1 P3.2	P92	76	-S14/KS3
SDA - 6 P33 24LC02 L L: Amber (STAND-BY)	P93	75	- S15/KS4
SCL - 7 P32 L H: Green (POWER ON)	P94	74	-S16/KS5 =
21 EU 78 P31	P95	73	-S17/KS6 ²
STLED2 - 9 P30 L: Red (PROTECT)	P96	72	-S18/KS7 ·
RESET - 10 RESET	P97	71	-S19/KS8
4.19 11 X2 1	P100	70	-S20 ·
12 X1	P101	69	- S21
GND - 13 Vpp 4 PD780204GF	P102	68	- S22
GND - 14 XT2	P103	67	- S23
OP3 - 15 P04(L:RDS)	P104	66	- S24
+5V — 16 Vdd OP3 OP1 OP2	P105	65	-OP2(SET)
L TP. M- 17 P27	P106	64	OP1 (BAND)
D 6-CH 18 P26 L: RDS L: HK-3270 L: E.U.	P107	63	─VR. LED(Ң)
PWR OFF- 19 P25	P110	62	-₩-MUTE(H)
PWR RLY— 20 P24	P111	61	R-MUTE(H)
ENC UP — 21 P23 VR UP COMMON DATA/CLK	P112	60	-C-MUTE(H)
ENC DN - 22 P22 VR DN (78211/78213)	P113	59	–NC
PROTECT—23 P21	P114	58	NC
PW. MUTE- 24 P20	P115	57	BYPASS(H)
GND - 25 AVss	P116	56	-59 CLK
FR. MUTE— 26 P17	P117	55	-59 DATA
TU_MUTE-27_P16	P120	54	-CE -1
F IN 28 P15	P121	53	-СLК 0
CE - 29 P14	P122	52	$-DATA \int_{0}^{3}$
CLK - 30 P13 AVref INTP2 INTP0 P126		51	SP OFF(L)
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	P125 49	50	
DATA TUNED VOLIN CLK DATA GND CLK CE CE V/A +5V V/B V/O LC72131 STEREO +5V (DOWN) RDS RMC (COM) (213) (211) (59)	C V/D	DATA COM.)

2. Input and Output Terminal Functions

< CPU PIN DISCRIPTION >

μPD780204GF QFP TYPE

PIN NO	PIN NAME	1/0	ACTIVE	PORT NAME	REMARK
1	Vdd	-	Н	+5 V	SYSTEM POWER SUPPLY
• 2	P37 °	I	Н	KR4	KEY READ 4
3	P36	I	Н	KR3	KEY READ 3
4	P35	I	Ĥ	KR2	KEY READ 2
5	P34	I	Н	KR1	KEY READ 1
6	P33	1/0	Н	SDA	EEPROM DATA - 24LC02
7	P32	0	H	SCL	EEPROM CLOCK
. 8	P31	0	H/L	PWR LED1	L Amber L Green H Red 7
9	P30	0	.H/L	PWR LED2	L STBY H POWER L PROT
10	RESET	Í	L	SYSTEM RESET	LOW RESET
11	X2	-	·_	MAIN OSC.	MAIN SYSTEM OSCILLATION
12	X1	I	-	J4.19MHz	
13	Vpp	-	L	connect to Vss	PROM WRITING
14	XT2	-	-	OPEN	NOT USED
15	P04	I	L	0P3	OPTION "L": RDS
16	Vdd	-	Н	+5 V	SYSTEM POWER SUPPLY
17	P27	0	Н	TAPE/M LED	TAPE MONITOR LED
18	P26	Ö	Н	6-CH LED	6-CHANNEL LED
19	P25	I	L	POWER OFF	POWER OFF: "L"
20	P24	0	Н	POWER RELAY	POWER ON: "H"
21	P23	1/0	H/L	ENCODER/VR. UP	AVR5/18: ENCODER IN
22	P22	I/0	H/L	ENCODER/VR.DN	HK3270 : VOLUME OUTPUT
23	P21	I	L	PROTECT	PROTECT DETECT IN : "L"
24	P20	0	L	POWER MUTE	MUTE ON: "L"
25	AVss	-	L	GND	A/D GND
26	P17	0	L	F_MUTE	· MUTE ON: "L"
27	P16	0	Н	T_MUTE	MUTE ON: "H"
28	P15	I	H/L	IF IN	IF COUNTER IN (LC7218)
29	P14	0	Н	PLL CE	PLL CHIP ENABLE (LC7218)
30	P13	0	Н	PLL CLK	PLL CLOCK (LC7218)
31	P12	0	Н	PLL DATA	PLL DATA (LC7218)
32	P11	I	L	TUNED	TUNED IN ON: "L"

PIN.NO	PIN NAME	I/0	ACTIVE	PORT NAME	REMARK
33	P10	I	L	STEREO	STEREO IN ON: "L"
34	AVdd	-	H ·	+5 V	A/D Vdd
35	AVref	Ĭ	L	GND	A/D GND
36	INTP3	I	L	ENC IN(DOWN)	ENCODER IN (DOWN)
37	INTP2	I	L	CLK ¬RDS	RDS CLOCK.IN "L"
38	P01	I.	Н	DATA-	RDS DATA IN
39	INTP0	I	L	REMOCON IN	REMOCON IN
40	Vss	-	L	GND -	SYSTEM GND
41	P74	0	Н	CLK (COMMON)	COMMON CLOCK(7821-1/-3)
42	P 7 3	0	Н	CE (7821-1)	CHIP ENABLE(7821-1)
43	P72	0	Н	CE (7821-3)	CHIP ENABLE(7821-3)
44	P71	0	,H	CE (9459)	VOLUME IC CHIP ENABLE(9459)
45	P70	0:	H/L	VID_A	VIDEO CONTROL A
46	Vdd	-	Н	+5 V	POWER SUPPLY
47	P127	0	H/L	VID B	VIDEO CONTROL B
48	P126	0	H/L	VID C	VIDEO CONTROL C
49	P125	0	H/L	VID D	VIDEO CONTROL D
50	P124	0	H ⁻	DATA(COMMON)	COMMON DATA(7821-1/-3)
51	P123	I	L	SP OFF	SPEAKER OFF: "L"
52	P122	0	Н	DATA(1103)	DOLBY IC. 1103 DATA
53	P121	0	L	CLK (1103)	CLOCK
54	P120	0	L	CE. (1103)	CHIP ENABLE
55	P117	0	Н	DATA(9459)	VOLUME IC. TC9459 DATA
56	P116	0	Н	CLK (9459)	CLOCK
.57	P115	0	Н	BYPASS(1103)	DOLBY IC. 1103 BYPASS:_"H"
58	P114	0	-	REMAINED	REMAINED
59	P113	0	-	REMAINED	REMAINED
60	P112	0	L	C_MUTE	CENTER MUTE ON: "L"
61	P111	0	L	R_MUTE	REAR MUTE ON: "L"
62	P110	0	L	W_MUTE	WOOFER MUTE ON: "L"
63	P107	0	Н	VR. LED	VOLUME LED ON: "H"
64	P106	0	L/H	OP1	H:USA BAND, L: EU. BAND
65	P105	0	L/H	OP2	H: AVR5/18 , L: HK3270
66	FIP33	0	Н	S24	FIP SEGMENT OUTPUT
67	FIP32	0	Н	S23	
68	FIP31	0	н	S22	
69	FIP30	0	Н	S21	

PIN NO	PIN NAME	1/0	ACTIVE	PORT NAME	REMARK	
70	FIP29	0	Н	S20	FIP SEGMENT OUTPUT	
71	FIP28	0	Н	S19/KS8	FIP SEG19/KEY SCAN 8	
72	FIP27	0	Н	S18/KS7	18/KEY SCAN 7	
73	FIP26	0	Н	S17/KS6	17/KEY SCAN 6	
74	FIP25	0.	Н	S16/KS5	16/KEY SCAN, 5	
75 .	FIP24	0	Н	S15/KS4	15/KEY SCAN 4	
76	FIP23	0	Н	. S14/KS3	14/KEY SCAN 3	
77	-FIP22	0	Ĥ	S13/KS2	13/KEY SCAN 2	
78	FIP21	.0	Н	S12/KS1	12/KEY SCAN 1	
79	Vload	-		Vl·oad	FIP DRIVER VOLTAGE	
80	FIP20	0	н	S11	FIP SEGMENT OUTPUT	
81	FIP19	0	н	S10	1	
82	FIP18	0.	н	S9		
83	FIP17	0	н	S8		
84	FIP16	0	Н	S7		
85	FIP15	0	Н	S6		
86	FIP14	0	н	S5		
87	FIP13	0	Н	S4		
88	FIP12	0	н	S3		
89	FIP11	0	н	S2		
90	FIP10	0	н	S1		
91	FIP9	.0	н	G1	FIP GRID OUTPUT	
92	FIP8	0	Н	G2		
93	FIP7	0	· H	G3		
94	FIP6	0	Н	G4		
95	FIP5	0	Н	G5		
96	FIP4	0	н	G6		
97	FIP3	0	Н	G 7		
98	FIP2	0	Н	G8		
99	FIP1	0	Н	G9		
100	FIP0	0	н	G10		

3. KEY MATRIX IN THE CPU (Front Panel)

	P34 / (IC701				/KR4 1 Pin2)	
	<	DELAY	SP CHANNEL	CENTER MODE	<< SET(&)	
S19/KS8 -		8010	8020	8040	8080	
P97 (IC701 Pin71)		SET	SET >>(&)	MUTE /#MUTE	SURR OFF	
S18/KS7 -		4010	4020	4040 =	4080	
P96 (IC701 Pin72)		TEST TONE	THEATER	HALL2	HALL1	
S17/KS6 -		2010	2020	2040	2080	
P95 (IC701 Pin73)		3 STEREO	PRO.LOGIC	FM MODE /#FM MODE	PRE UP(&) /*PRE UP(&)	
S16/KS5 -		1010	1020	1040	1080	
P94 (IC701 Pin74)		PRE DOWN(&)/ *PRE DOWN (*)	PRE SCAN /*PRE SCAN	TUNNING UP /*TUNNING UP	TUNNING DN(&) /*TUNN- DN(&)	
S15/KS4 -		0810	0820	0840	0880	
P93 (IC701 Pin75)		AM / FM /*FM	6-CH /≄AM	VIDEO3	VIDE02	•
S14/KS3 -		0410	0420	0440	0480	
P92 (IC701 Pin76)		VIDEO1/ *AUX	DVD /*TAPE2	GD /#CD	TAPE MON /#TAPE MON	
S13/KS2 —		0210	0220	0240	0280	
P91 (IC701 Pin77)		ST-BY/ *ST-BY	PHONO/ *PHONO	PTY /#PTY	DISPLAY /*DISPLAY	
S12/KS1 -		0110	0120	0140	0180	
P90 (IC701 Pin78)		00				

*: HK-3270 &: KEY

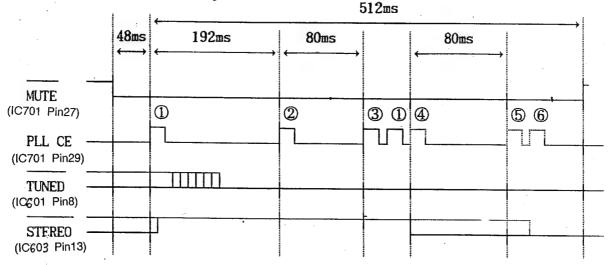
R DIMMER (A010) E O MEMORY (B010) PWR ON (C010) O L -NO. 1 (D010) T Y NO. 5 (E010) E NO. 9 (F010)	DIRECT (B0	0) VR. UP (B040)	VR. DOWN (B080)
	PWR OFF (C0	0) SLEEP (C040)	CLEAR (C080)
	NO. 2 (D0	0) NO. 3 (D040)	NO. 4 (D080)
	NO. 6 (E0	0) NO. 7 (E040)	NO. 8 (E080)

4. TIMING CHART (IF COUNT)

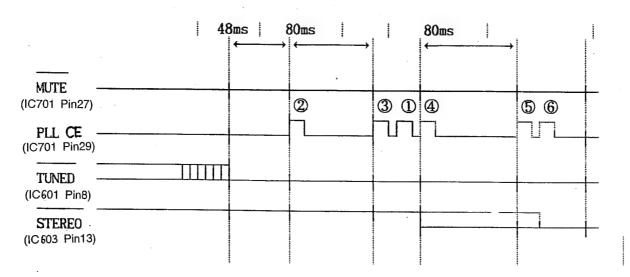
- ① PLL MODE-1
- ② PLL MODE-2
- ③ PLL MODE-3
- 4 PLL MODE-4
- ⑤ PLL MODE-5
- 6 PLL MODE-6

A dotted line (·····): In case that IF COUNT is not proper, follow PLL MODE of ④, ⑤, ⑥.

- When changing BAND, selecting the PRESET STATIONS using TEN KEY and selecting the PRESET STATIONS using PRESET CHANNEL UP/DOWN.

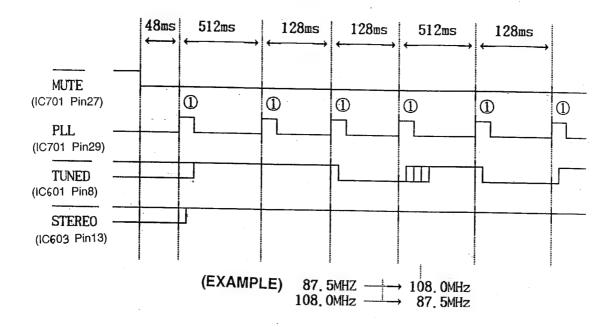


When IF COUNT is not proper in case that the frequency is not tuned,

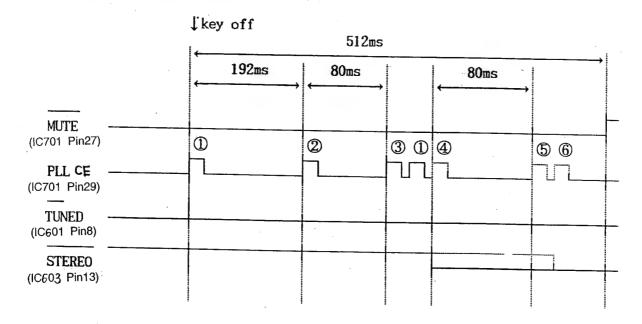


- MANUAL TUNING UP/DOWN

I KEY ON

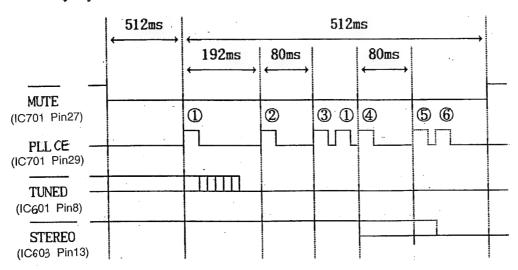


- MANUAL TUNING UP/DOWN key OFF

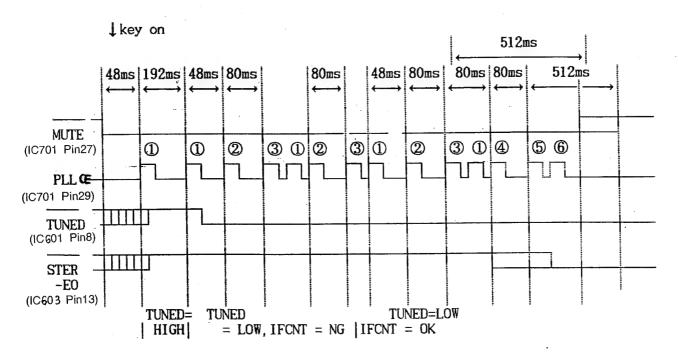


- POWER ON

↓key on



- AUTO TUNING UP/DOWN



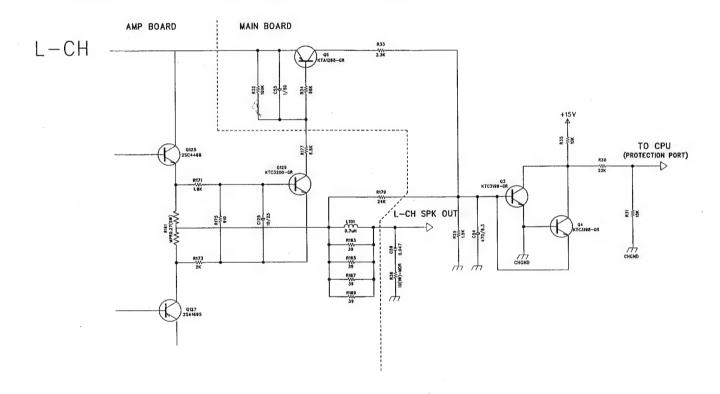
5. Protection Circuits

SPEAKER PROTECTION CIRCUIT

The CPU protects both this unit and the speakers when an abnormally high current flows in Q125, Q126, Q155, Q173 and Q127, Q128, Q157, Q158, Q174 due to excessive input drive, too low of a load impedance, or short of the speaker terminals. If current increase is excessive the voltage across R161, R162, R241, R291, R242 turns on Q129, Q130, Q159, Q160, Q175 then Q6 turns on Q3.

It makes the protection port of the CPU to low state.

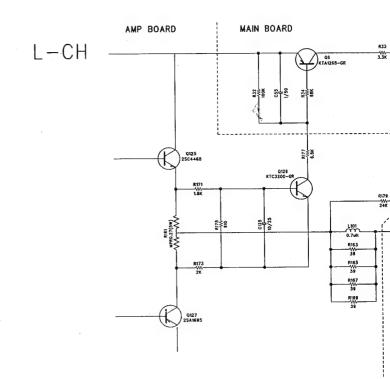
Then all channels are muted and the display is turned off.



5. Protection Circuits SPEAKER PROTECTION CIRCUIT

The CPU protects both this unit and the speakers of Q125, Q126, Q155, Q173 and Q127, Q128, Q157, Q100 low of a load impedance, or short of the speaker the voltage across R161, R162, R241, R291, R242 to then Q6 turns on Q3.

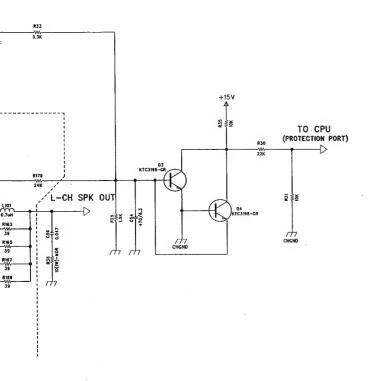
It makes the protection port of the CPU to low state. Then all channels are muted and the display is turned



eakers when an abnormally high current flows in Q157, Q158, Q174 due to excessive input drive, speaker terminals. If current increase is excessive R242 turns on Q129, Q130, Q159, Q160, Q175

state.

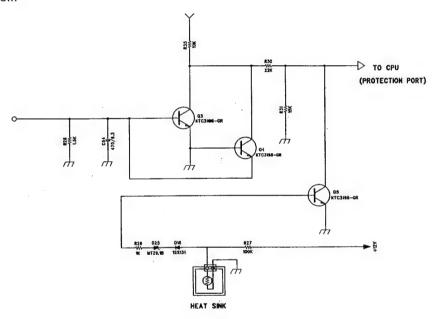
s turned off.



THERMAL PROTECTION CIRCUIT

This receiver has a overload thermal protection circuits to guard against abnormal operation. When the temperature of H/SINK POSISTOR rises abnormally, resistance of the posistor becomes larger and Q3 is turned on.

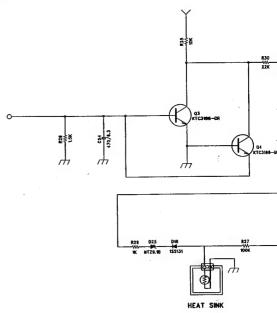
It makes the protection port of the CPU to low state. Then all channels are muted and the display is off.



THERMAL PROTECTION CIRCUIT

This receiver has a overload thermal protection circuits When the temperature of H/SINK POSISTOR rises at becomes larger and Q3 is turned on.

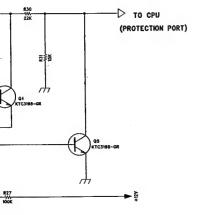
It makes the protection port of the CPU to low state. display is off.

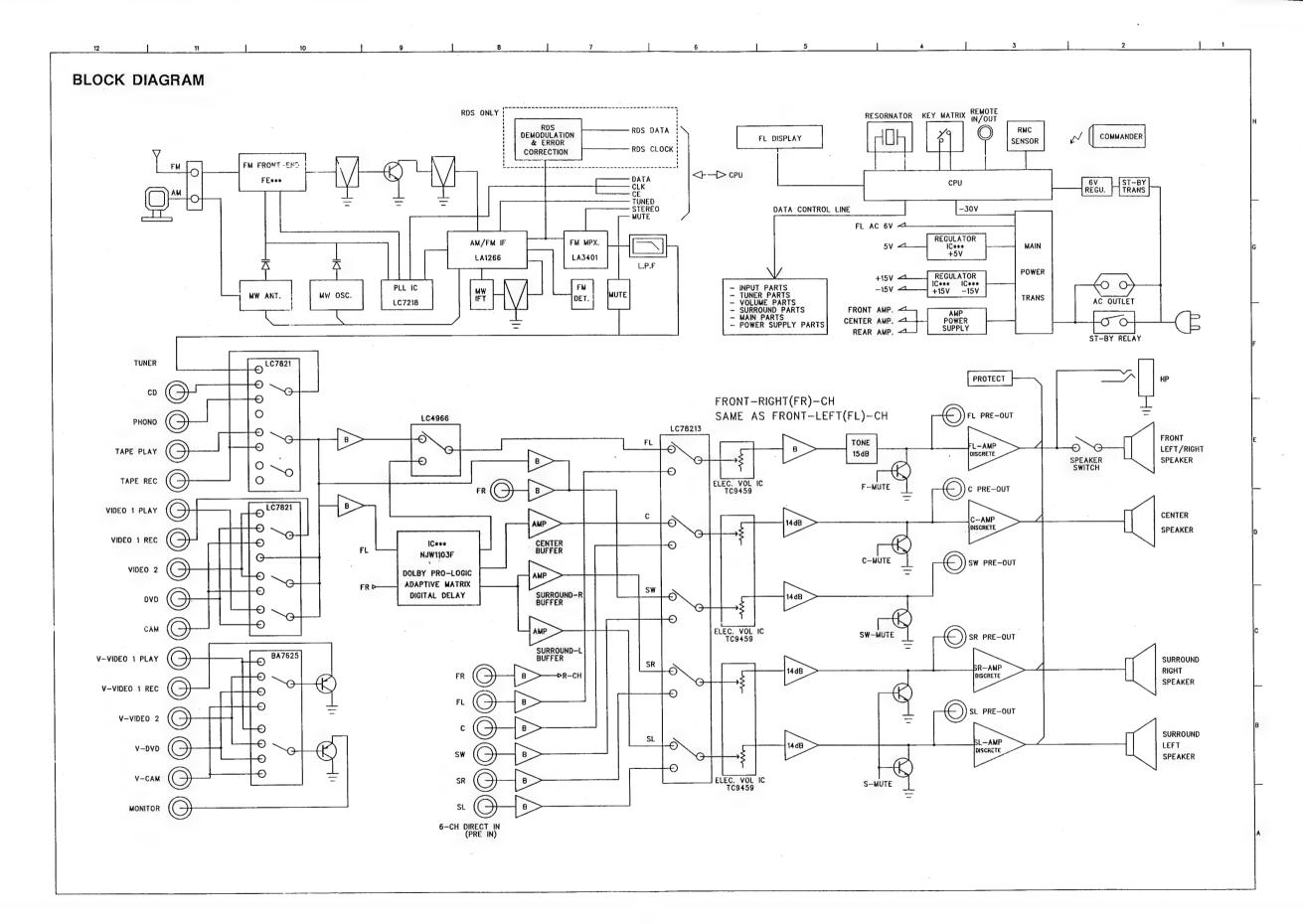


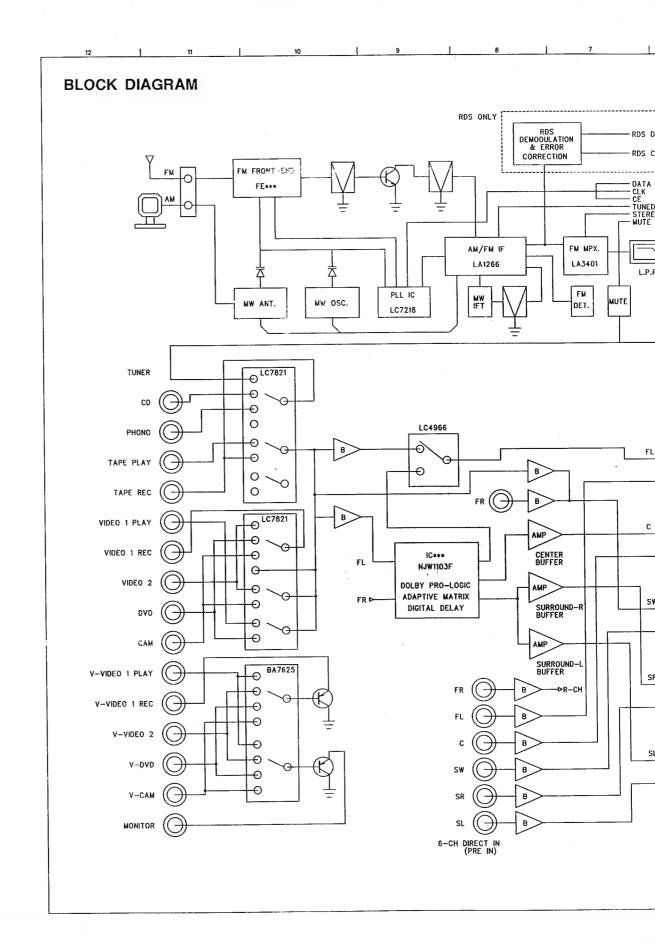
AVR5/AVR18RDS

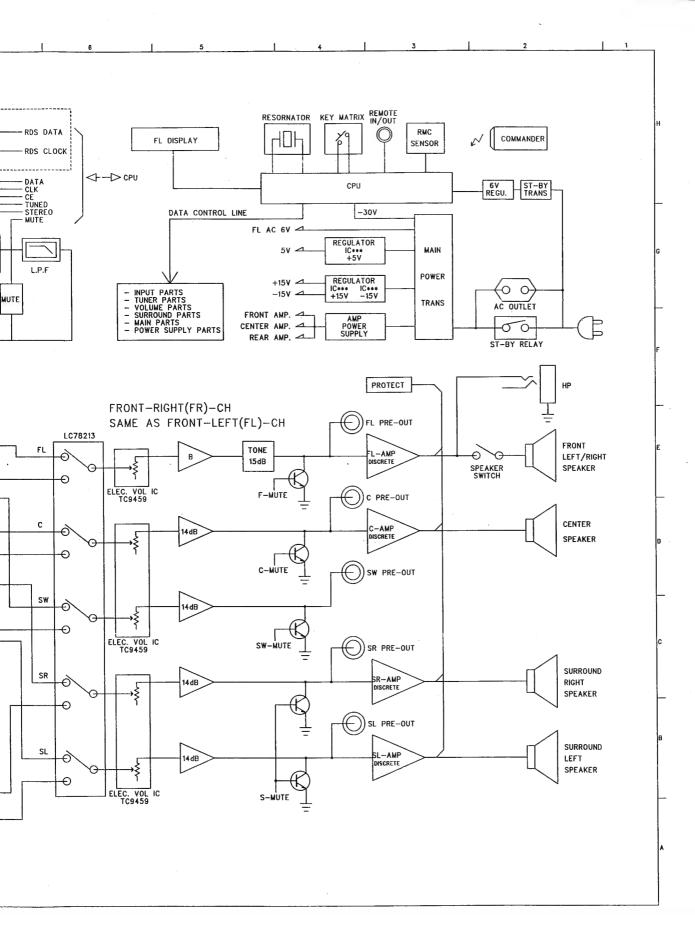
ircuits to guard against abnormal operation. ses abnormally, resistance of the posistor

state. Then all channels are muted and the









AVR5/AVR18RDS

DISASSEMBLY PROCEDURES

(Refer to pages 25~29)

□ CHASSIS TOP < (35) > REMOVAL

Remove 9 screws <A, A> and then remove the Chassis Top< 3>>.

2 FRONT PANEL ASS'Y <AA> REMOVAL

- 1. Remove the Chassis Top < (35) >, referring to the previous step [].
- 2. Disconnect the connector <CN701> from connector <CW10> on the Main P. C. Board<①>.
- 3. Disconnect the lead wire <CW701> from connector <CW 17> on the Main P.C. Board <①>.
- 4. Disconnect the lead wire <CW 706> from connector <CN 902> on the Video P.C. Board <\(\mathbb{O}\)>.
- 5. Disconnect the lead wire <CW 706> from connector <CN 403> on the Input P.C. Board <@>.
- 6. Remove 1 screw <①> of Chassis Panel and then lead wire <CH 702> on the Tone P.C. Board <©>.
- 7. Disconnect the lead wire <CW 705> from connector <CN 803> on the Pre Out P.C. Board <(1)>,
- 8. Disconnect the lead wire <CN 709> from connector <CN 102> on the Amp P.C. Board <①>.
- 9. Disconnect the lead wire <CN 708> from connector <CW 4> on the Main P.C. Board <①>.
- 10. Remove 1 screw <(1)> of the Chassis Panel and then lead wire <CH 703> on the Speaker P.C. Board <(6)>,
- 11. Disconnect the connector <CW 19> from connector <CW 2> on the Main P.C. Board <①>.
- 12. Remove 9 screws <©,①,⊕> and then remove the Front Panel Ass'y <AA>.

3 FRONT P. C. BOARD < D > REMOVAL

- 1. Remove the Chassis Top <35>, referring to the previous step [].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step [2].
- 3. Disconnect the connector <CN702> from lead wire <CW702> on the Power P. C. Board<①>.
- 4. Disconnect the lead wire <CW704> from connector <CN704> on the Volume P. C. Board <@>.
- 5. Disconnect the lead wire <CW703> from connector <CN703> on the Mute P. C. Board <@>.
- 6. Remove 13 screws < (1) > and then remove the Front P.C. Board < (1) >.

4 VOLUME P.C. BOARD <∅> REMOVAL

- 1. Remove the Chassis Top < (35)>, referring the previous step [T].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step 2.
- 3. Pull out the Volume knob <0>.
- 4. Disconnect the lead wire <CN704> from lead wire <CW704> on the Front P. C. Board<>> .
- 5. Remove 1 hexagon nut <@>, 1 washer <@> and then remove the volume P. C. Board <@>.

5 MUTE P.C. BOARD <@> REMOVAL

- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step 2.
- 3. Disconnect the connector <CN703> from lead wire <CW703> on the Front P. C. Board<>>.
- 4. Remove 2 screws <(1)> and then remove the Mute P.C. Board<(a)>.

6 VIDEO 2 P. C. BOARD < >> REMOVAL

- 1. Remove the Chassis Top<35 >, referring to the previous step [].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step 2.
- 3. Remove 2 screws <①> and then remove the Video 2 P.C. Board<⑩>.
- 4. Pull out the shield Video<®>.

☑ TONE P. C. BOARD <⑥> REMOVAL

- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step 2.
- 3. Pull out the Balance knob<5>.
- 4. Remove 4 screws <①> and then remove the Tone P.C. Board Ass'y <AC>.
- 5. Remove 4 hexagon nut <2>,and then remove the Shield Balance<9>.

8 SPEAKER P. C. BOARD <@> REMOVAL

- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step 2.
- 3. Remove 3 screws <0, ①> and then remove the Speaker P.C. Board<0>.

POWER P. C. BOARD < P>> REMOVAL

- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step [2].
- 3. Disconnect the lead wire <CW702> from connector <CN702> on the Front P. C. Board<\(\hbrace > \).
- 4. Remove 2 screws <①> and then remove the Power P.C. Board<①>.

III STANDBY P. C. BOARD < (2) > REMOVAL

- 1. Remove the Chassis Top<③5>, referring to the previous step Ⅲ.
- 2. Remove the Front Panel Ass'y <AA>, referring to the previous step [2].
- 3. Remove 2 screws < (1) > and then remove the Standby P.C. Board < (2) >.

Ⅲ RADIATOR ASS'Y <AB> REMOVAL

- 1. Remove the Chassis Top<③5)>, referring to the previous step Ⅲ.
- 2. Remove 1 screw <①> and then remove the Bracket PCB< 2>>.
- 3. Disconnect the connector <CN102> from lead wire <CN708> on the Speaker P. C. Board<@>.
- 4. Disconnect the lead wire <CW103> from connector <CW16> on the Main P. C. Board<①>.
- 5. Disconnect the lead wire <CW104> from connector <CW5> on the Main P. C. Board<①>.
- 6. Disconnect the lead wire <JW368 AREA, 1P> from connector <L/V PW-01> on the Main P. C. Board<①>.
- 7. Disconnect the connector <CN101> from lead wire <CW801> on the Free Out P. C. Board<0>.
- 8. Remove 1 screw <@> of the Radiator<@> and then disconnect the connector <CW 8> on the Main P. C. Board<@>.
- 9. Remove 4 screws <(1)> and then remove the Radiator Ass'y <AB>.

12 AMP P.C. BOARD < 1> REMOVAL

- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 2. Remove the Radiator Ass'y <AB>, referring to the previous step []]
- 3. Remove 5 screws <0> and then remove the Amp P.C. Board<0>.

[3] TUNER P.C. BOARD <⊕> REMOVAL

- 1. Remove the Chassis Top<(ℜ)>, referring to the previous step □.
- 2. Remove 2 screws <®, @> and then remove the Tuner P.C. Board<®>.

IA PRE OUT P. C. BOARD < >> REMOVAL

- 1. Remove the Chassis Top<③5>, referring to the previous step □.
- 2. Remove 1 screw <(1)> and then remove the Bracket PCB< (2)>.
- 3. Disconnect the lead wire <CW803> from connector <CN404> on the Input P. C. Board<@>.
- 4. Disconnect the lead wire <CW807> from connector <CN405> on the Input P. C. Board<@>.
- 5. Disconnect the connector <CN803> from lead wire <CW705> on the Tone P. C. Board<©>.
- 6. Disconnect the lead wire <CW801> from connector <CN101> on the Amp P. C. Board<①>.
- 7. Remove 4 screws <®, @> and then remove the Pre Out P. C. Board<D>.

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AVR5/AVR18RDS

INPUT P. C. BOARD < REMOVAL

- 1. Remove the Chassis Top< (₃5)>, referring to the previous step [...].
- 2. Remove 1 screw < 1> and then remove the Bracket Pcb< 2>.
- 3. Disconnect the connector <CN404> from lead wire <CW803> on the Free Out P. C. Board<①>.
- 4. Disconnect the connector <CN403> from lead wire <CW706> on the Video 2 P. C. Board <D>.
- 5. Disconnect the connector <CN405> from lead wire <CW807> on the Free Out P. C. Board<(I)>.
- 6. Remove 1 screw <@> of the Main P. C. Board <①> and then the lead wire <C541 AREA, 1P> on the Input P. C. Board <@>.
- 7. Remove 5 screws <®, @> and then remove the Input P. C. Board<@>.

M VIDEO P. C. BOARD < > REMOVAL

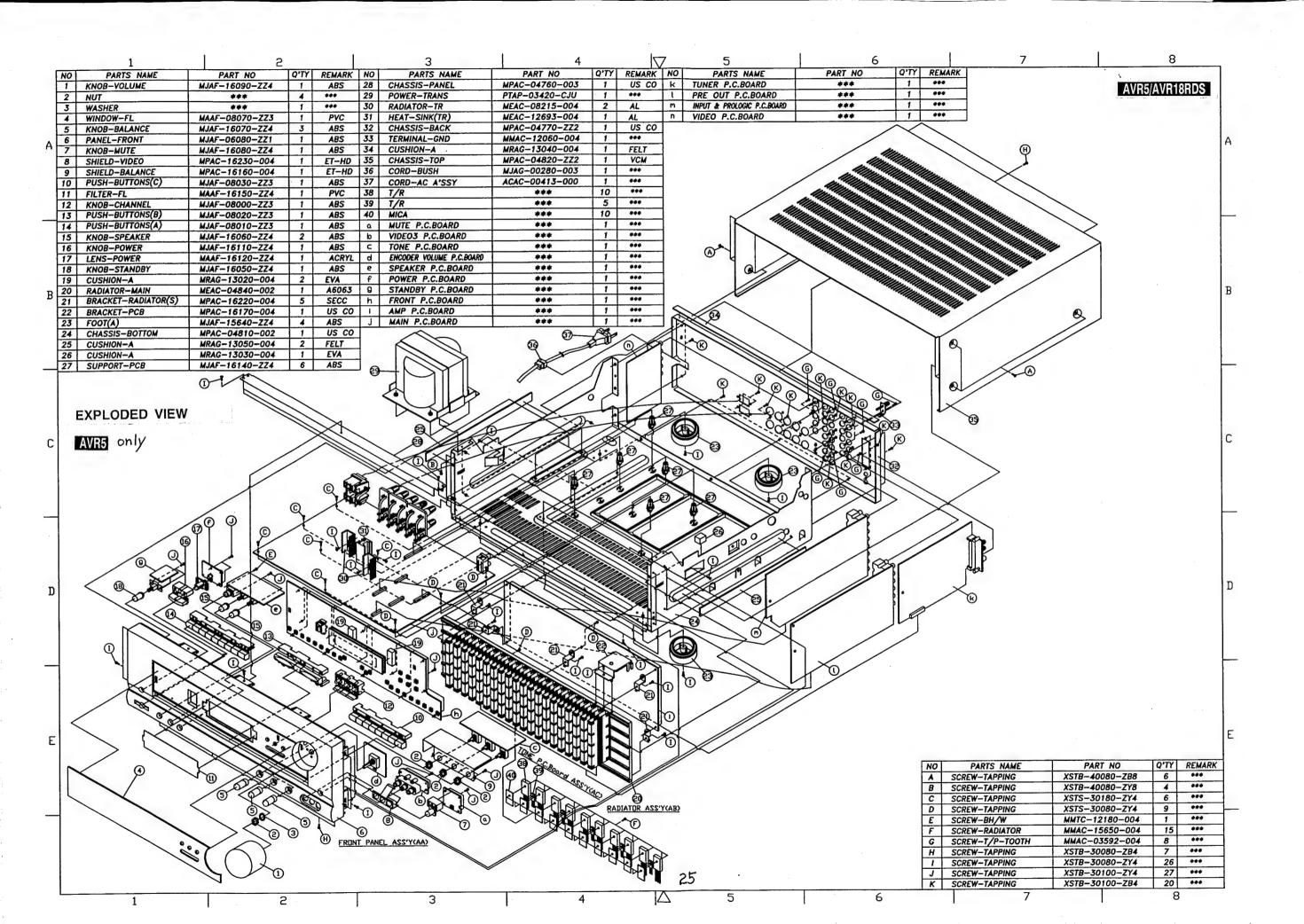
- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 3. Remove 3 screws <®, @> and then remove the Video P. C. Board<@>.

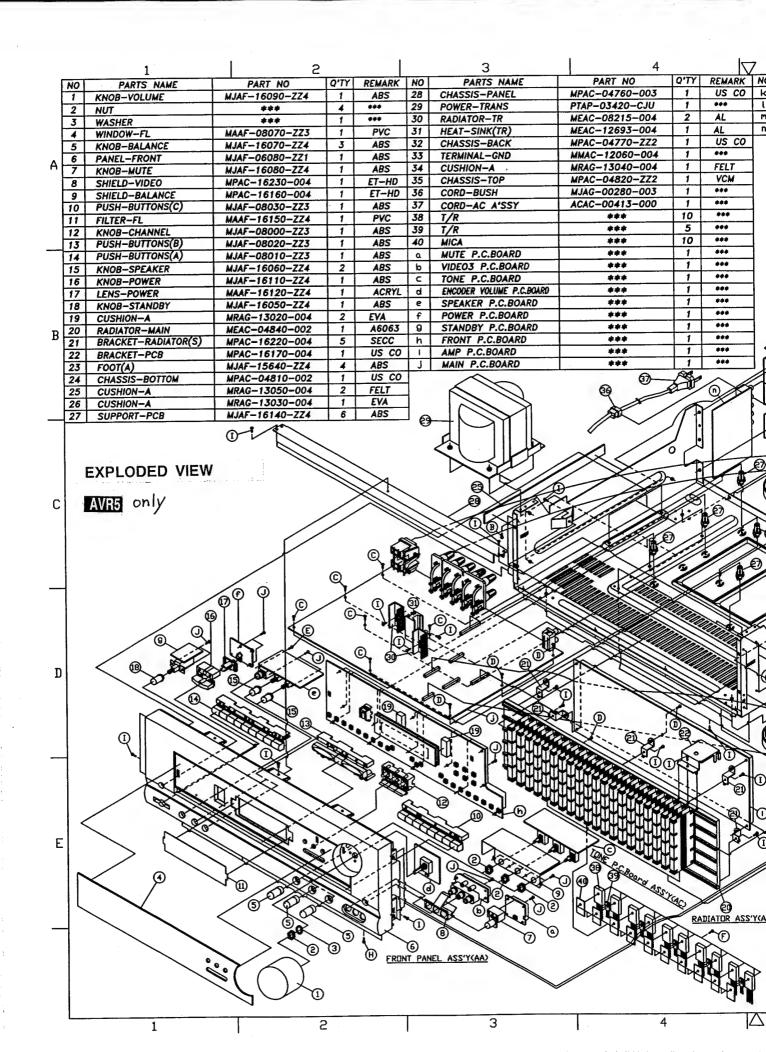
MAIN P. C. BOARD < >> REMOVAL

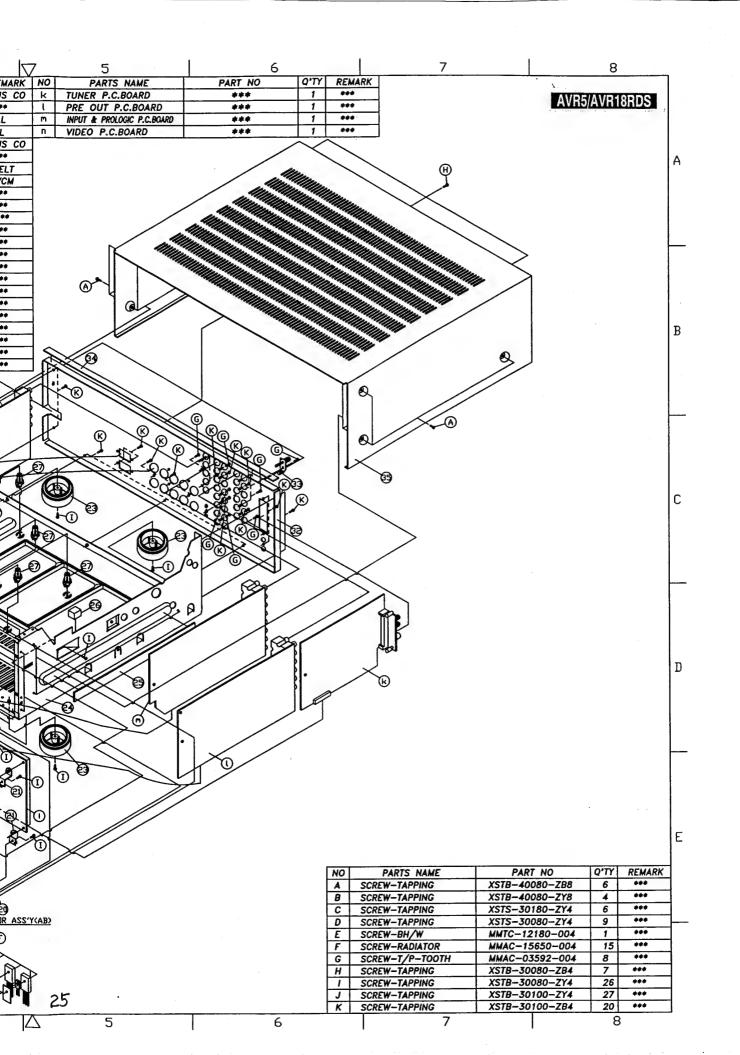
- 1. Remove the Chassis Top<35>, referring to the previous step [].
- 2. Remove the Tuner P. C. Board<@>>, referring to the previous step [3].
- 3. Remove the Free Out P. C. Board<①>, referring to the previous step [4].
- 4. Remove the Input P. C. Board<@>, referring to the previous step [5].
- 5. Remove the Video P. C. Board<@>>, referring to the previous step [6].
- 6. Disconnect the connector <CW3> from lead wire <2P> PT < 29>.
- 7. Disconnect the connector <CW1> from AC Cord<37)>.
- 8. Disconnect the connector <CW2> from connector <CW19> on the Standby P. C. Board<@>.
- 9. Disconnect the connector <CW4> from lead wire <CN708> on the Speaker P. C. Board<@>.
- 10. Disconnect the connector <CW5> from lead wire <CW104> on the Amp P. C. Board<①>.
- 11. Disconnect the connector <CW9> from lead wire <3P> P/T<29>.
- 12. Disconnect the connector <CW17> from lead wire <CW701> on the Front P. C. Board<-
- 13. Disconnect the connector <CW6> from lead wire <3P> P/T<29>.
- 14. Disconnect the connector <CW16> from lead wire <CW103> on the Amp P. C. Board<①>.
- 15. Disconnect the connector <CW8> from lead wire <POSISTOR> on the Radiator<@>>.
- 16. Disconnect the connector <CW7> from lead wire <6P> P/T< 29>.
- 17. Disconnect the connector <CW10> from connector <CN701> on the Front P. C. Board<\(\hbrace > \).
- 18. Disconnect the connector <L/V PIN-01> from lead wire <1P> on the Amp P. C. Board<①>.
- 19. Remove 19 screws < ©, Ø > and then remove the Chassis back Ø >.
- 20. Remove 9 screws <@,@> and then remove the Main P. C. Board<①>.

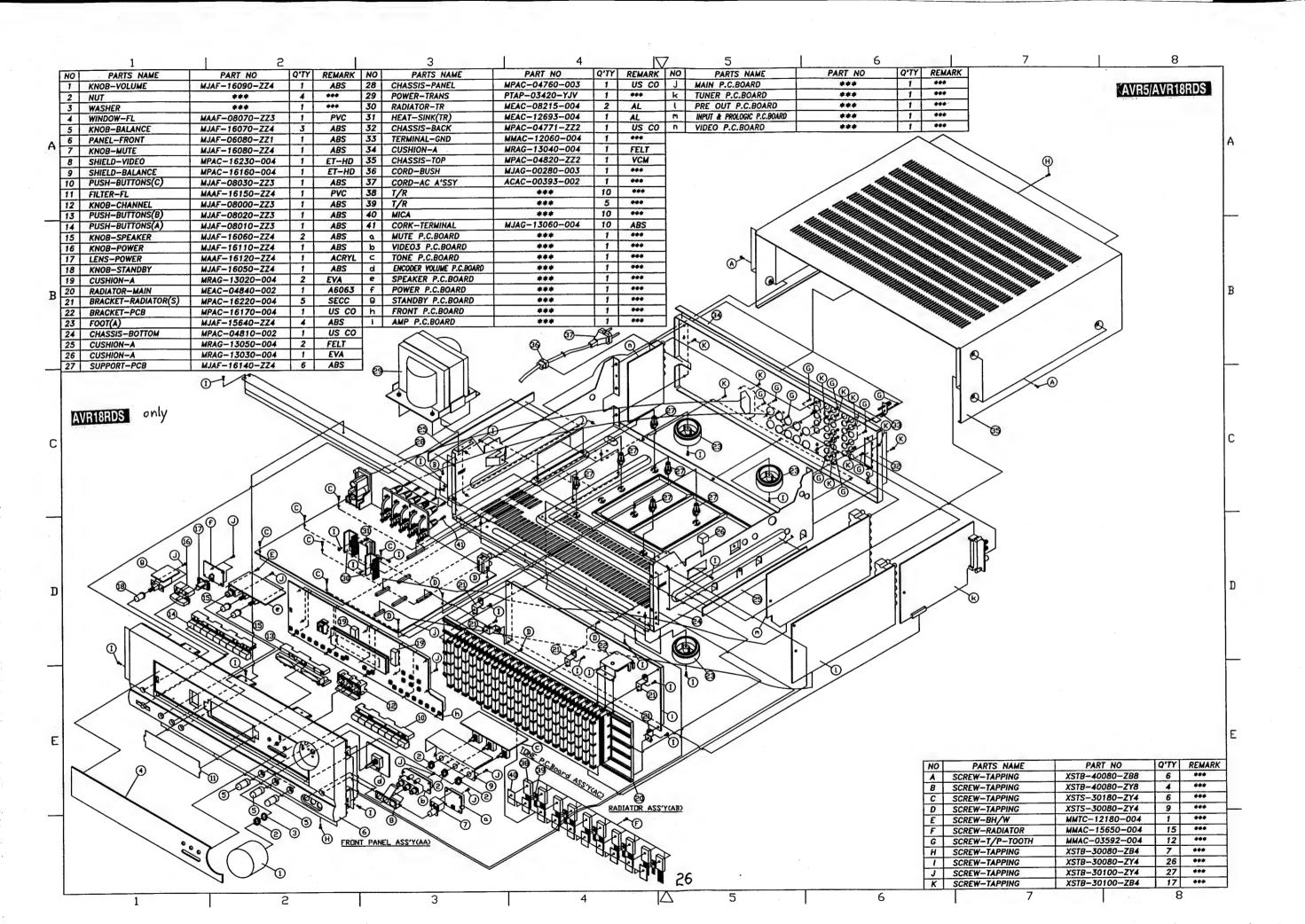
I POWER TRANS<<₽> REMOVAL

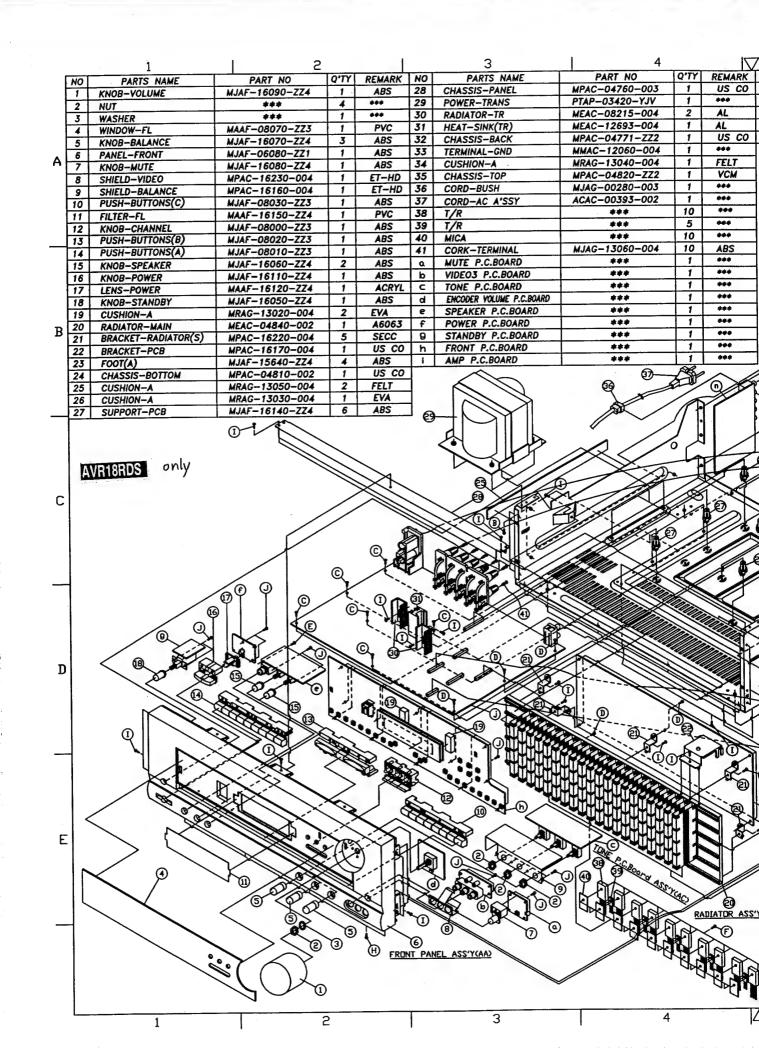
- 1. Remove the Chassis Top< \mathfrak{F} , referring to the previous step \square .
- 2. Disconnect the lead wire <2P-black, white> from connector <CW3> on the Main P. C. Board<①>.
- 3. Disconnect the lead wire <3P-black, red> from connector <CW6> on the Main P. C. Board<①>.
- 4. Disconnect the lead wire <3P-orange, gray> from connector <CW9> on the Main P. C. Board<①>.
- 5. Disconnect the lead wire <6P-black, blue, brown> from connector <CW7> on the Main P. C. Board<①>.
- 6. Remove 4 screws and then remove the Power Trans.

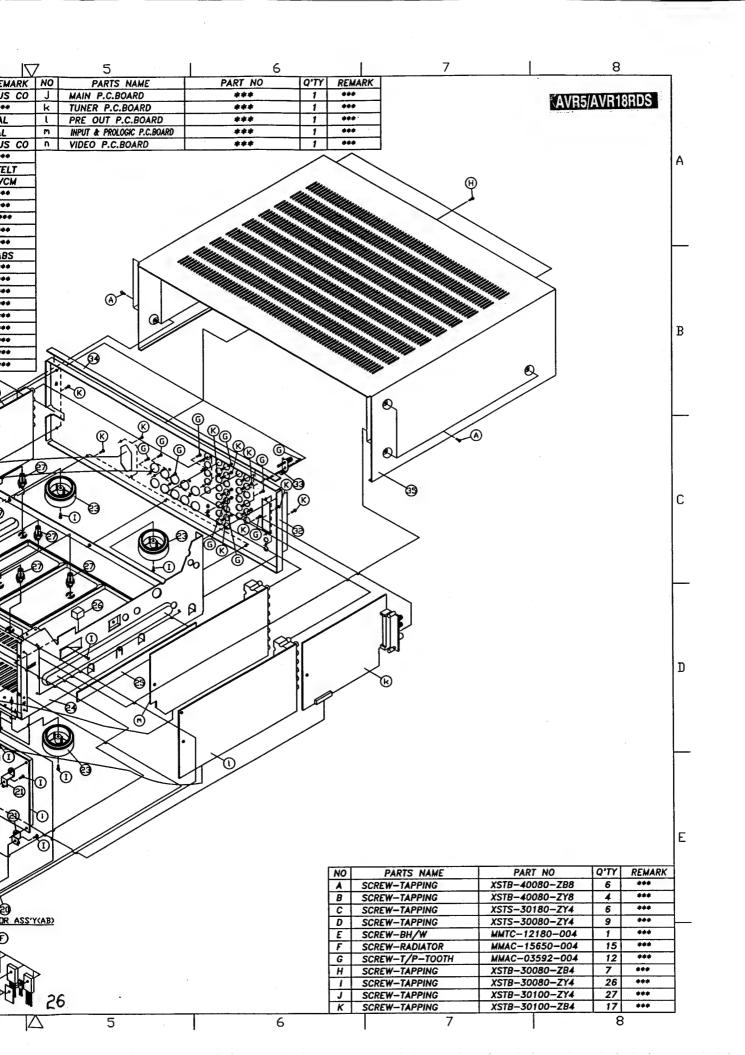




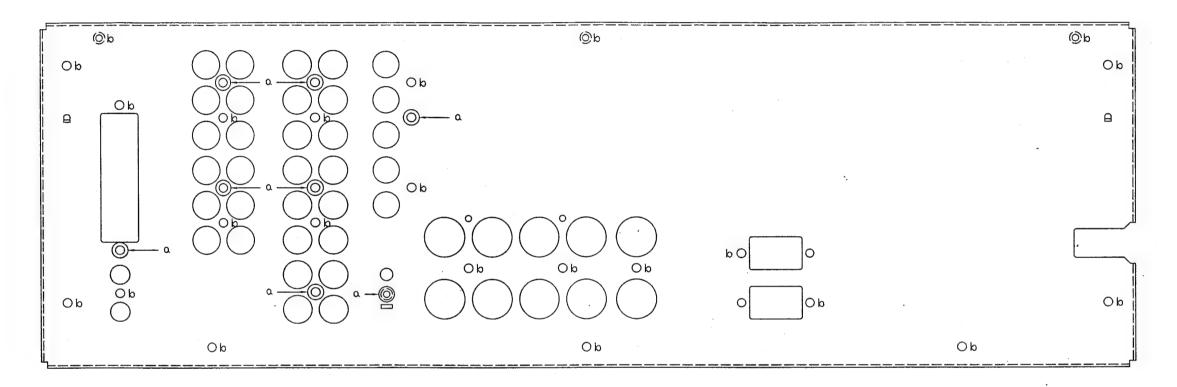








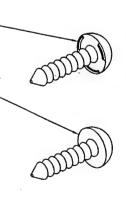
* AVR5 / AVRIBRDS PRINCIPAL SCREW LOCATION



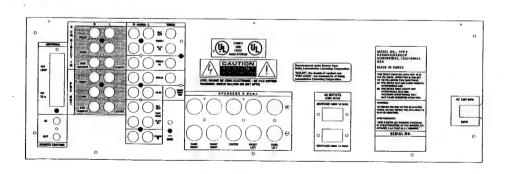
- * a PDINT(8): MMAC-03592-004 SCREW-T/P-TDDTH(FDR GROUNDING)
- * b POINT(23) : XSTB-30100-ZB4 SCREW-TAPPING

MMAC-03592-004 SCREW-T/P-TDDTH

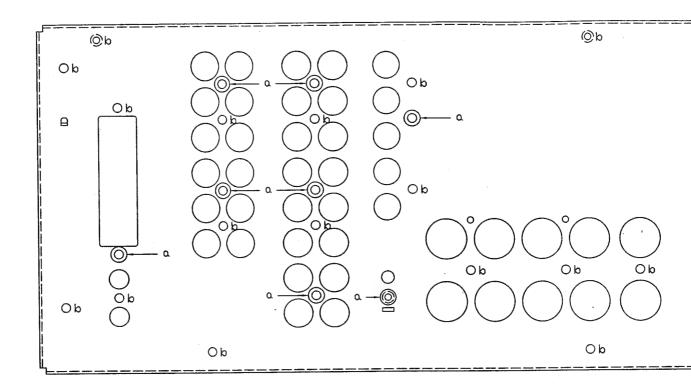
XSTB-30100-ZB4 SCREW-TAPPING



GROUND POSITION



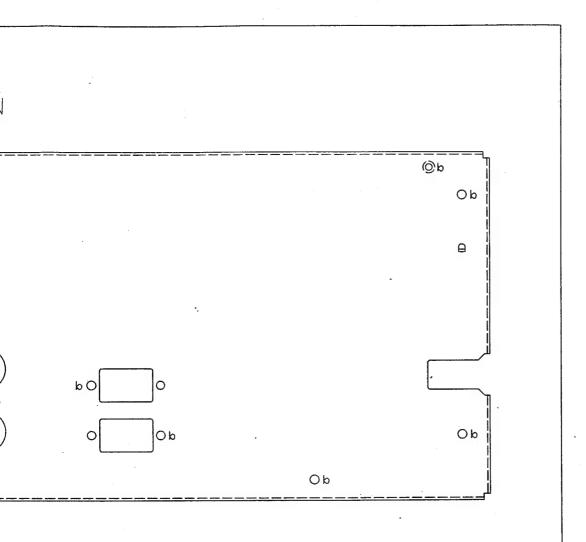
* AVR5 / AVRIBRDS PRINCIPAL SCREW LOCATION



α PDINT(8): MMAC-03592-004 SCREW-T/P-TDDTH(FDR GROUNDING)

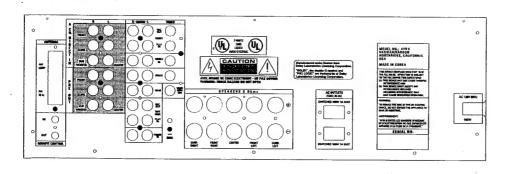
b POINT(23): XSTB-30100-ZB4 SCREW-TAPPING

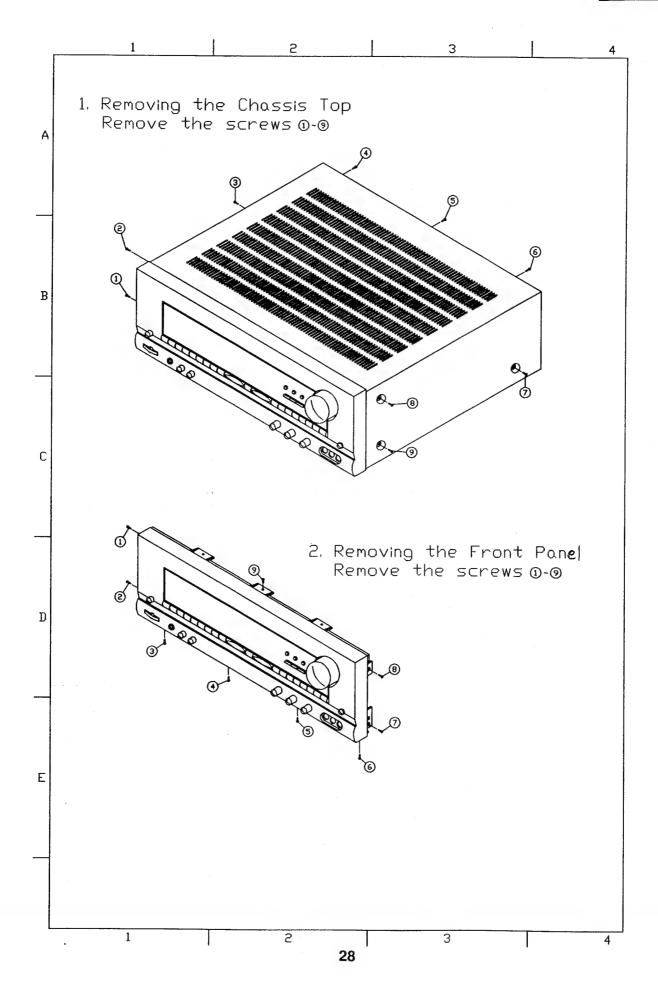
MMAC-03592-004 SCREW-T/P-TOOTH XSTB-30100-ZB4 SCREW-TAPPING

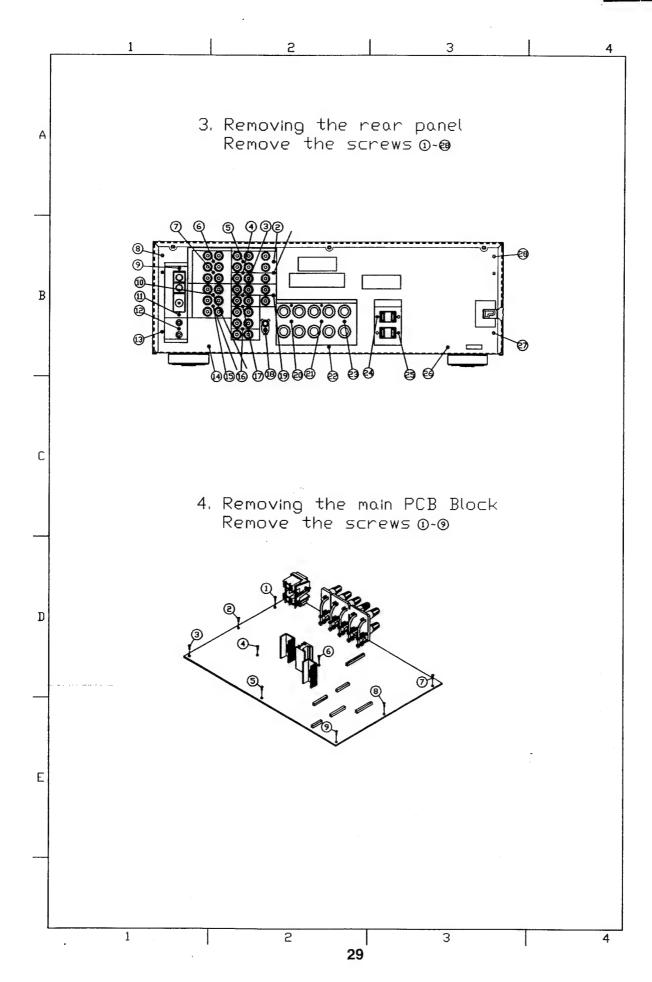


ING)

GROUND POSITION







MECHANICAL PARTS LIST

Ref. No.	Part No. 1.BLOCK MECHA	Description	
1	MJAF-16090-ZZ4	KNOB-VOLUME	ABS-720
4	MAAF-08070-ZZ3	WINDOW-FL	PVC, A700D R(a)
5	MJAF-16070-ZZ4	KNOB-BALANCE	ABS-720
6	MJAF-16110-ZZ4	KNOB-POWER	ABS-720
6	MJAF-06080-ZZ1	PANEL-FRONT	ABS-720
7	MJAF-16080-ZZ4	KNOB-MUTE	ABS-720
8	MPAC-16230-004	SHIELD-VIDEO	ET-HD,0.3T
9	MPAC-16160-004	SHIELD-BALANCE	ET-HD t0.5
10	MJAF-08030-ZZ3	PUSH-BUTTONS(C)	ABS-720
11	MAAF-16150-ZZ4	FILTER-FL	PVC, RSM-05
12	MJAF-08000-ZZ3	KNOB-CHANNEL	ABS-720
13	MJAF-08020-ZZ3	PUSH-BUTTONS(B)	ABS-720
14	MJAF-08010-ZZ3	PUSH-BUTTONS(A)	ABS-720
15	MJAF-16060-ZZ4	KNOB-SPEAKER	ABS-720
17	MAAF-16120-ZZ4	LENS-POWER	PMMA(IF-850)
18	MJAF-16050-ZZ4	KNOB-STANDBY	ABS-720
20	MEAC-04840-002	RADIATOR-MAIN	A6063,T~5 +AL
21	MPAC-16220-004	BRACKET-RADIATOR(S)	US COATING T1.0
22	MPAC-16170-004	BRACKET-PCB	US Coating t1.0
23	MJAF-15640-ZZ4	FOOT(A)	03 Coating (1.0
24	MPAC-04810-002	CHASSIS-BOTTOM	US Coating t1.2
. 25	MRAG-13050-004	CUSHION-A	FELT 250x10x0.5 S
26	MRAG-13030-004	CUSHION-A	EVA(VE-45),15X15X12T
27	MJAF-16140-004	SUPPORT-PCB	ABS-720
28	MPAC-04760-003	CHASSIS-PANEL	US Coating t1.0
30	MEAC-08215-004	RADIATOR-T/R	AL
31	MEAC-12693-004	HEAT-SINK (TR)	AL
32	MPAC-04771-ZZ2	CHASSIS-BACK	US Coating t1.0 "AVR18RDS"
32	MPAC-04770-ZZ2	CHASSIS-BACK	US Coating t1.0 "AVR5"
33	MMAC-12060-004	TERMINAL-GND	22 23 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
34	MRAG-13040-004	CUSHION-A	FELT 437x10x0.5 S
35	MPAC-04820-ZZ2	CHASSIS-TOP	VCM t0.95(SECC0.8+PVC0.15)
36	MJAG-00280-003	CORD-BUSH	NIFCO
37	ACAC-00393-002	CORD-AC ASS'Y	KKJ-1004A,JE201-03,JE203T "AVR18RE
37	ACAC-00413-000	CORD-AC ASS'Y	KE-01P,JE201-03,JE203T "AVR5"
A	XSTB-40080-ZB8	SCREW-TAPPING	BHT3T 4x8 FE-ZB
В	XSTB-40080-ZY8	SCREW-TAPPING	BHT3T 4x8 FE-ZY
С	XSTS-30180-ZY4	SCREW-TAPPING	PHWT2T 3x18 FE-ZY
D	XSTS-30080-ZY4	SCREW-TAPPING	PHWT2T 3x8 FE-ZY
Ε	MMTC-12180-004	SCREW-BH/W	
F	MMAC-15650-004	SCREW-RADIATOR	
G	MMAC-03592-004	SCREW-T/P-TOOTH	BH T2T 3X10 FE-ZB
Н	X\$TB-30080-ZB4	SCREW-TAPPING	BHT2T 3x8 FE-ZB
	XSTB-30080-ZY4	SCREW-TAPPING	BHT2T 3x8 FE-ZY
J	XSTB-30100-ZY4	SCREW-TAPPING	BHT2T 3x10 FE-ZY
K	XSTB-30100-ZB4	SCREW-TAPPING	BHT2T 3x10 FE-ZB
**	MJAG-04540-004	CABLE-TIE-L80	*
**	MMSC-00900-004	AIR-STAPLER	
**	MWAW-00910-003	PALLETS	1040X1126X141
**	YGAP-14250-ZZ4	BOX-GIFT	DW-3
**	YIAR-I2000-ZZA	INST-MANUAL	
**	YSAP-12070-002	CUSHION-L/R	EPS
**	YVAP-01862-ZZ4	POLY-BAG-I(G)	
**	YVAP-13320-ZZ4	TOILON-SHEET	750x1200, 0.5t
**	YWAR-I2000-ZZA	WARRANTY-CARD	
* *	7JJG-00212-001	WRAP	**

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE: Products marked with \triangle have special characteristics important to satety. If you replace any of these components, read carefully the product safety notice in this manual.

Don't degrade the safety of the product through improper servicing. Resistor / Capacitor tolerance – D: $(\pm 0.5\%)$, J: $(\pm 5\%)$, K: $(\pm 10\%)$, M: $(\pm 20\%)$, z: (+80,-20%)

Ref. No.	Part No. 1, MAIN P.C.BOARD	Description FUSES			
A F101 A F101 A F102 A F103 A F103 A F104 A F104 A F105 A F105 A F106 A F106	FGFB-O5002-831 FGFB-S3152-837 FGFB-S2502-837 FGFB-O3151-831 FGFB-S3151-837 FGFB-O2002-831 FGFB-S2002-837 FGFB-O2002-831 FGFB-S2002-837 FGFB-O8001-831 FGFB-S8001-837	FUSE GLASS		2A 250V 50T	"AVR18 ONLY" "AVR18 ONLY" SB "AVR5 ONLY"
C1 C2 C3 C4 C5 C6 C7 C8 AC9 AC10 AC11 AC12 AC13 AC14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 C32 C33 C31 C32 C33 C34 C44 C45 C47 C48 C49 C50 C51 C52 C54 C55 C56 C57 C58 C59 C60 C61	CCAT-J473Z-AAF CCAT-J473Z-AAF CCAT-J473Z-AAF CCAT-J473Z-AAF CCET-E102M-HL0 CEET-J1R0M-CI0 CCAT-J104Z-AAF CEET-JR33M-CI0 CEET-J1R0M-CI0 CCACS-S472M-180 CFMT-S104K-GI0 CEEZ-L104M-SV3 CEEZ-L104M-SV3 CEEZ-L104M-SV3 CEEZ-L104M-SV3 CEEZ-L104M-SV3 CEET-L104M-SV3 CFMT-N473J-GK0 CFMT-N473J-GK0 CFMT-N473J-GK0 CFMT-N473J-GK0 CFMT-N473J-GK0 CEET-J1R0M-CI0 CCCT-J104Z-OFF CCCT-J104Z-OFF CCCT-J104Z-OFF CCCT-J104Z-OFF CCT-J104Z-OFF CCT-J102Z-QN-CI0 CCCT-J222K-ODB CCCT-J22ZK-ODB CCT-J22ZK-ODB CCCT-J22ZK-ODB CCCT-J22ZK-ODB	CAPACITORS CAPACITORS CAPACITOR CE CAPACITOR CE CAPACITOR CE CAPACITOR E/ CAPACITOR E/ CAPACITOR E/ CAPACITOR E/ CAPACITOR F/ CAPACITOR E/ CAPACITOR E/ CAPACITOR E/ CAPACITOR CE CAPACITOR	ERAMIC ERAMIC ALUMINUM ALUMINUM ERAMIC ALUMINUM ALUMINUM C POLYESTR ALUMINUM ALUMINUM ERAMIC ERA	2200PF K 50V B T ".	T T T T T T T T T T CL CL CL CSMH CSMH CSMH CSMH CS. T

Ref. No. C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C73 C74 C75 C76 C77	Part No. CEET-F470M-CIO CEET-J100M-CIO CEET-J100M-CIO CEET-J100M-CIO CEET-J100M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEAT-J473Z-AAF CCAT-J473Z-AAF CCAT-J221K-AAB CCAT-J221K-AAB CCAT-J221K-AAB CCAT-J221K-AAB CCAT-J221K-AAB CCAT-J221K-AAB CCAT-J221K-AAB	Description CAPACITOR E/ALUMINUM CAPACITOR CERAMIC	47uF M 25V 5x11 T 10uF M 50V 5x11 T 4.7uF M 50V 5x11 T 0.047uF Z 50V F T 0.047uF Z 50V F T 220PF K 50V B T 470uF M 35V 10x20 U T
▲ D1 ▲ D2 ▲ D3 ▲ D4 D5 ▲ D6 ▲ D7 ▲ D8 ▲ S9 ▲ D10 ▲ D11 ▲ D12 ▲ D13 ▲ D14 ▲ D15 ▲ D16 ▲ D17 D18 D19 ▲ D20 ▲ D21 D25 ▲ D20 ▲ D21	DDTR-00040-T10 DDTR-00040-T10 DDTR-00040-T10 DDTR-00040-T10 DDTR-00040-T10 DDTR-00040-T10 DDTR-00040-T10 DDTR-00040-T10 DDMR-00230-T10 DDMR-00230-T10 DDMR-00230-T10 DDMR-00230-T10 DDTR-00040-T10	DIODES DIODE—RECTIFIER DIODE—SI DIODE—SI DIODE—SI DIODE—SI DIODE—RECTIFIER	1N4004S(400V 1A 0.6mm) T 1N4004S(400V 1A 0.6mm) T 1N4004S(400V 1A 0.6mm) T 1N4004S(400V 1A 0.6mm) T 1N4004S(400V 1A 0.6mm) T MTZ4.3B 4.17-4.43 DO40 T 1N4004S(400V 1A 0.6mm) T 1N5133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T 1N4004S(400V 1A 0.6mm) T MTZ9.1B 9.01 DO40 T 1N4004S(400V 1A 0.6mm) T 1N4004S(400V 1A 0.6mm) T
▲IC1 ▲IC2 ▲IC3 ▲IC4 IC5 IC6 IC7	ICRG-00091-SE0 ICRG-00061-SE0 ICRG-00251-SE0 ICRG-00091-SE0 ICPC-00010-TB0 ICOP-00134-SG0 ICOP-00134-SG0	INTEGRATED CIRCUITS IC REGULATOR IC REGULATOR IC REGULATOR IC REGULATOR IC PHOTOCOUPLER IC DUAL OP AMP IC DUAL OP AMP	KA7806 6V 3mm TO-220 KA7815 15V 3mm TO-220 KA7915 15V 3mm TO-220 KA7806 6V 3mm TO-220 LTV817B DIP4 NJM4558M SOP8 NJM4558M SOP8
▲ CW1 ▲ CW2 ▲ CW3 CW4 CW5 ▲ CW6 CW7 CW8 CW9 CW10 CW11 CW12 CW13 CW15 CW16 CW17 CW18	VSTH-00101-101 U345-6A354-450 LLA3-35401-E10 KNCW-00990-2T9 KNCW-00990-2T9 KNCW-00140-6TM KNCW-00140-6TM KNCW-00140-6TM KNCW-00140-6TM KNCW-00140-3TM KNCW-00140-3TM KNCW-01520-ES9 KNCW-01520-CS9 KNCW-01520-CS9 KNCW-01520-CS9 KNCW-01520-S9	CONNECTORS POSISTOR WIRE - ASS'Y CARD CABLE CONNECTOR - WAFER	P43T6D100BW23 UL1617#18 BLU-540 3P KF2B35/400 P7S9 B9 VS3 VB3 JE202A-1T-02 JE202A-1T-02 JE202A-1T-02 5267-06A 2.5mm MILK 5267-06A 2.5mm MILK JE202-1T-3P 5267-06A 2.5mm MILK 5267-02A 2.5mm MILK 5267-03A 2.5mm MILK 5267-03B 2.5mm MILK 5267-03B 2.5mm MILK 5267-03B 2.5mm MILK 5267-08A 2.5mm MILK 5267-08A 2.5mm MILK 5267-08A 2.5mm MILK

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Ref. No.	Part No.	Description	
CW20	KNCW-01520-8S9	CONNECTOR-WAFER	35336-0810 2M/M 8P
CW21	KNCW-01520-BS9	CONNECTOR-WAFER	35336-1110 20MM 11P
	KNCW-06410-01T	CONNECTOR-WAFER	YFW-800-01
		DEGLOTODO	
R1	DMOD LHOOL OCO	RESISTORS	40.1 400 (500/0)40 (4005
R3	RMOR-H100J-0C0	RESISTOR-METAL OXIDE	10ohm 1W J ERG(X)1SJ100E
R4	RCFT-E222J-000 RCFT-E222J-000	RESISTOR—CARBON FILM	2.2Kohm 1/5W J T
R5	RCFT-E222J-000	RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R6	RCFT-E823J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R7	RMOH-J4R7J-030	RESISTOR—METAL OXIDE	82Kohm 1/5W J T 4.7ohm 2W J CRH200
R8	RMOH-J4R7J-030	RESISTOR-METAL OXIDE	4.70hm 2W J CRH200 4.70hm 2W J CRH200
R9	RMOH-H100J-030	RESISTOR-METAL OXIDE	10ohm 1W J H
R10	RCFT-F4R7J-010	RESISTOR-CARBON FILM	4.7ohm 1/4W J T
R11	RCFT-F4R7J-010	RESISTOR-CARBON FILM	4.7ohm 1/4W J T
R12	RCFT-E3R3J-000	RESISTOR-CARBON FILM	3.3ohm 1/5W J T
R13	RCFT-E3R3J-000	RESISTOR-CARBON FILM	3.3ohm 1/5W J T
R17	RCFT-E332J-000	RESISTOR-CARBON FILM	3.3Kohm 1/5W J T
R18	RCFT-E101J-000	RESISTOR-CARBON FILM	100ohm 1/5W J T
R19	RCFT-E392J-000	RESISTOR-CARBON FILM	3.9Kohm 1/5W J T
R20	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R21 R22	RCFT-E473J-000	RESISTOR-CARBON FILM	47Kohm 1/5W J T
AR23	RCFT-E271J-000 RCFT-G335K-1D0	RESISTOR - CARBON FILM	270ohm 1/5W J T
R25	RCFT-E561J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	3.3Mohm 1/2W ERC12UGK335V
R26	RCFT-E152J-000	RESISTOR—CARBON FILM	560ohm 1/5W J T 1.5Kohm 1/5W J T
R27	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R29	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R30	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R31	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R32	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R33	RCFT-E332J-000	RESISTOR-CARBON FILM	3.3Kohm 1/5W J T
R34	RCFT-E683J-000	RESISTOR-CARBON FILM	68Kohm 1/5W J T
R35 R36	RCFT-E103J-000	RESISTOR—CARBON FILM	10Kohm 1/5W J T
R37	RMOR-H100J-0C0 RMOR-H100J-0C0	RESISTOR-METAL OXIDE RESISTOR-METAL OXIDE	10ohm 1W J ERG(X)1SJ100E
R38	RMOR-H100J-0C0	RESISTOR - METAL OXIDE	10ohm 1W J ERG(X)1SJ100E 10ohm 1W J ERG(X)1SJ100E
R39	RMOR-H100J-0C0	RESISTOR - METAL OXIDE	100hm 1W J ERG(X)1SJ100E
R40	RMOR-H100J-0C0	RESISTOR-METAL OXIDE	10ohm 1W J ERG(X)1SJ100E
R41	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R42	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R43	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R44	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R45	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R46 R47	RCFT-E104J-000 RCFT-E223J-000	RESISTOR - CARBON FILM	100Kohm 1/5W J T
R48	RCFT-E104J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	22Kohm 1/5W J T 100Kohm 1/5W J T
R49	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R50	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R51	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R52	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R53	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R54	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R55	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R56	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R57 R58	RCFT-E102J-000 RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R59	RCFT-E1023-000 RCFT-E152J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	1Kohm 1/5W J T 1.5Kohm 1/5W J T
R60	RCFT-E152J-000	RESISTOR-CARBON FILM	1.5Kohm 1/5W J T
R61	RCFT-E102J-000	RESISTOR—CARBON FILM	1.5Koniii 1/5W J T
R62	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
		TRANSISTORS	
Q1	TRTD-00200-SD0	TRANSISTOR N-L FREQ	KTD-1302 TO92
Q2	TRTA-00940-SD0	TRANSISTOR P-H FREQ	KRA107M W/RESIST TO92M
Q3	TRTC-0016G-SD0	TRANSISTOR N-H FREQ	KTC3198-GR TO92
Q4	TRTC-0016G-SD0	TRANSISTOR N-H FREQ	KTC3198-GR TO92
Q5	TRTC-0016G-SD0	TRANSISTOR N-H FREQ	KTC3198-GR TO92
Q6	TRTA-0067Y-SD0	TRANSISTOR P-H FREQ	KTA1267-Y TO92M
		MISCELLANEOUS	
GND1	MPAC-03811-004	TERMINAL-GND	
GND2	MPAC-03811-004	TERMINAL-GND	

Ref. No. GND3 FC1 FC2 FC3 FC4 FC5 FC6 FC7 FC8 FC9 FC10 FC11 FC12 RL1	Part No. MPAC-03811-004 MPAC-11620-004	Description TERMINAL—GND FUSE CLIP RELAY RADIATOR—TR	5.2Pi TAPPING TYPE
A PCB A:ST3 AST3 A JACK1 ST4 SH1	MEAC-12693-004 PTAP-03420-CJU PTAP-03420-YJV PCSR-04790-11B PTAC-03260-CJU PTAC-03260-YJV SKAO-00190-C50 SKAO-00130-4CV SKPH-00520-360 TESP-00401-02P TESP-00460-08S	HEAT—SINK(TR) TRANSFORMER—POWER TRANSFORMER—POWER PCB—MAIN TRANSFORMER—POWER TRANSFORMER—POWER AC OUTLET AC OUTLET MINIATURE JACK TERMINAL SPEAKER TERMINAL SPEAKER	A96-342C-U 120V/60Hz "AVR5 ONLY" A96-342Y-V 230V/50Hz "AVR18 ONLY" A1R-479 A35-326C-U 120V/60Hz "AVR5 ONLY" A35-326Y-V 230V/50Hz "AVR18 ONLY" S2-764T-214 "AVR5 ONLY" YKE31-0090 "AVR18 ONLY" HSJ1002-01-1020 SH0210381P 2P SH0810361P 8P
≜ SW784	1-1. POWER SWITCH P SWPU-00591-059	.C.BOARD MISCELLANEOUS SWITCH-PUSH	SDDI P1 - A1 - E - 2
PCB	PCSR-04790-11B	PCB-PUSH POWER S/W	SDDLB1-A1-F-2 A1R-479
▲ :CW19	KNCW-00990-2T9	CONNECTORS CONNECTOR-WAFER	JE202A-1T-02
	2. 5-CH. AMP P.C.BOA	ARD CAPACITORS	
C101 C102 C103 C104 C105 C106 C107 C108 C109 C110 C111 C111 C1115 C116 C117 C118 C119 C120 C121 C122 C123 C124 C125 C126 C127 C128 C129 C130 C131 C132 C134 C135 C134 C135 C136 C137	CEET-F470M-CIO CEET-F470M-CIO CEET-F470M-CIO CCTT-J680J-0FC CCTT-J680J-0FC CCAT-J681K-AAB CCAT-J681K-AAB CEET-F330M-CIO CEET-F220M-CIO CEET-F220M-CIO CEET-F220M-CIO CEET-C471M-FI1 CEET-C471M-FI1 CEET-L331M-DI1 CEET-L331M-DI1 CEET-L331M-DI1 CEET-L331M-DI1 CEET-L331M-DI1 CCET-J220J-0BZ CCTT-J220J-0BZ CCTT-J220J-0BZ CCTT-J220J-0BZ CEET-J100M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J100M-CIO CEET-F470M-CIO	CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR E/ALUMINUM CAPACITOR CERAMIC CAPACITOR E/ALUMINUM CAPACITOR CERAMIC CAPACITOR CE	47uF M 25V 5x11 T 47uF M 25V 5x11 T 68PF J 50V CH T 68PF J 50V CH T 680PF K 50V B T 680PF K 50V B T 33uF M 25V 5x11 T 33uF M 25V 5x11 T 22uF M 25V 5x11 T 22uF M 25V 5x11 T 470uF M 6.3V 8x11.5 U T 470uF M 6.3V 8x11.5 U T 330uF M 63V 10x20 SHL T 22PF J 50V SL T 22PF J 50V SL T 10uF M 50V 5x11 T 10uF M 50V 5x11 T 4.7uF M 50V 5x11 T 4.7uF M 50V 5x11 T 10uF M 50V 5x11 T 10uF M 50V 5x11 T 10uF M 50V 5x11 T 4.7uF M 50V 5x11 T 10uF M 50V 5x11 T 68PF J 50V CH T 68PF J 50V SX11 T 33uF M 25V 5x11 T 22uF M 25V 5x11 T

Ref. No. C138 C141 C142 C143 C144 C145 C146 C147 C148 C149 C150 C151 C152 C153 C154 C155 C156 C157 C158 C160 C161 C162 C163 C164 C165	Part No. CEET-C471M-Fi1 CEET-L331M-DI1 CEET-L331M-DI1 CEET-L331M-DI1 CEET-L331M-DI1 CEET-L331M-DI1 CCTT-J220J-0BZ CCTT-J220J-0BZ CCTT-J220J-0BZ CEET-J100M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J100M-CI0 CEET-J100M-CI0 CEET-J100M-CI0 CEET-J100M-CI0 CEET-F470M-CI0 CCTT-J680J-0FC CCAT-J681K-AAB CEET-F330M-CI0 CEET-F220M-CI0 CEET-C471M-FI1 CEET-L331M-DI1 CCTT-J220J-0BZ CEET-J100M-CI0 CEET-J100M-CI0 CEET-J100M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0	Description CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR CERAMIC CAPACITOR E/ALUMINUM	470uF M 6.3V 8x11.5 U T 330uF M 63V 10x20 SHL T 22PF J 50V SL T 22PF J 50V SL T 10uF M 50V 5x11 T 4.7uF M 50V 5x11 T 4.7uF M 50V 5x11 T 10uF M 50V 5x11 T 22uF M 25V 5x11 T 22uF M 25V 5x11 T 22uF M 25V 5x11 T 22uF M 6.3V 8x11.5 U T 330uF M 6.3V 10x20 SHL T 22PF J 50V SL T 10uF M 50V 5x11 T 4.7uF M 50V 5x11 T 4.7uF M 50V 5x11 T
D101 D102 D103 D104 D105 D106 D107 D108 D109 D110	DDTS-00070-SO0	DIODES DIODE-SI	1SS133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T
L101 L102 L103 L104 L105	KIBK-00190-E40 KIBK-00190-E40 KIBK-00190-E40 KIBK-00190-E40 KIBK-00190-E40	COILS INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR	INDUCTOR, 0.7uH INDUCTOR, 0.7uH INDUCTOR, 0.7uH INDUCTOR, 0.7uH INDUCTOR, 0.7uH INDUCTOR, 0.7uH
CN101 CN102 CW103 CW104	KNCW-00240-AT9 KNCW-00140-5TM U810-7M412-200 U610-5M426-200 U1T1-01520-Z10 U1T3-01330-T40	CONNECTORS CONNECTOR-WAFER CONNECTOR-WAFER WIRE-ASS'Y WIRE-ASS'Y WIRE-ASS'Y WIRE-ASS'Y	53014-10 2.0mm WHT 5267-05A 2.5mm MILK 1007#20 VIT-120 8P UL1007#20 GRN-260 6P 1007#22 BLK-200 3.2pi 1007#18 BLK-300 YFH-800
Q101 Q102 Q103 Q104 Q105 Q106 Q107 Q108 Q109 Q110 Q111 Q112 Q113 Q114 Q115 Q116 Q117 Q118	TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTC-0015G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0011G-SD0 TRTA-0013Y-SD0 TRTA-0013Y-SD0 TRTC-0087Y-SD0 TRTC-0087Y-SD0	TRANSISTORS TRANSISTOR P—H FREQ TRANSISTOR N—H FREQ TRANSISTOR N—H FREQ TRANSISTOR N—H FREQ TRANSISTOR N—H FREQ TRANSISTOR P—H FREQ TRANSISTOR P—H FREQ TRANSISTOR N—H FREQ	KTA1268-GR TO92 KTC3200-GR TO92 KTA1268-GR TO92 KTA1268-GR TO92 KTA1268-GR TO92 KTA1024-Y KTA1024-Y KTC3206-Y TO92L KTC3206-Y TO92L

Ref. No.	Part No.	Description	*
Q119	TRSC-01680-SB0	TRANSISTOR N-H FREQ	2SC4137 TO-126FP
Q120	TRSC-01680-SB0	TRANSISTOR N-H FREQ	2SC4137 TO-126FP
Q121	TRSC-01540-SJ0	TRANSISTOR N-H FREQ	2SC4883A
Q122	TRSC-01540-SJ0	TRANSISTOR N-H FREQ	2SC4883A
Q123	TRSA-01450-SJ0	TRANSISTOR N-H FREQ	2SA1859A
Q124	TRSA-01450-SJ0	TRANSISTOR N-H FREQ	2SA1859A
▲ Q125	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ	2SC4468-Y TO3P
∆ Q126	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ	2SC4468-Y TO3P
▲ Q127	TRTA-0090Y-SJ0	TRANSISTOR P-H FREQ	2SA1695-Y TO3P
▲ Q128 Q129	TRTA-0090Y-SJ0	TRANSISTOR P-H FREQ	2SA1695-Y TO3P
Q130	TRTC-0015G-SD0 TRTC-0015G-SD0	TRANSISTOR N-H FREQ TRANSISTOR N-H FREQ	KTC3200-GR TO92 KTC3200-GR TO92
Q131	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q132	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268 – GR TO92
Q133	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q134	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q135	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q136	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q137	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q138 ⁻ Q139	TRTA-0011G-SD0 TRTC-0015G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q140	TRTC-0015G-SD0	TRANSISTOR N-H FREQ TRANSISTOR N-H FREQ	KTC3200-GR TO92 KTC3200-GR TO92
Q141	TRTC-0015G-SD0	TRANSISTOR N-H FREQ	KTC3200-GR TO92
Q142	TRTC-0015G-SD0	TRANSISTOR N-H FREQ	KTC3200-GR TO92
Q143	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q144	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q145	TRTA-0013Y-SD0	TRANSISTOR N-H FREQ	KTA1024-Y
Q146	TRTA-0013Y-SD0	TRANSISTOR N-H FREQ	KTA1024-Y
Q147	TRTC-0087Y-SD0	TRANSISTOR N-H FREQ	KTC3206-Y TO92L
Q148 Q149	TRTC-0087Y-SD0 TRSC-01680-SB0	TRANSISTOR N-H FREQ	KTC3206-Y TO92L
Q149 Q150	TRSC-01680-SB0	TRANSISTOR N-H FREQ TRANSISTOR N-H FREQ	2SC4137 TO-126FP 2SC4137 TO-126FP
Q151	TRSC-01540-SJ0	TRANSISTOR N-H FREQ	2SC483A
Q152	TRSC-01540-SJ0	TRANSISTOR N-H FREQ	2SC4883A
Q153	TRSA-01450-SJ0	TRANSISTOR N-H FREQ	2SA1859A
Q154	TRSA-01450-SJ0	TRANSISTOR N-H FREQ	2SA1859A
▲ Q155	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ	2SC4468-Y TO3P
▲ Q156	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ	2SC4468-Y TO3P
▲ Q157	TRTA-0090Y-SJ0 TRTA-0090Y-SJ0	TRANSISTOR P—H FREQ	2SA1695-Y TO3P
▲ Q158 Q159	TRTC-0015G-SD0	TRANSISTOR P-H FREQ TRANSISTOR N-H FREQ	2SA1695-Y TO3P KTC3200-GR TO92
Q160	TRTC-0015G-SD0	TRANSISTOR N-H FREQ	KTC3200-GR TO92
Q161	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q162	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q163	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q164	TRTA-0011G-SD0	TRANSISTOR P-H FREQ	KTA1268-GR TO92
Q165 Q166	TRTC-0015G-SD0 TRTC-0015G-SD0	TRANSISTOR N-H FREQ	KTC3200-GR TO92
Q167	TRTA-0011G-SD0	TRANSISTOR N-H FREQ TRANSISTOR P-H FREQ	KTC3200-GR TO92 KTA1268-GR TO92
Q168	TRTA-0013Y-SD0	TRANSISTOR N-H FREQ	KTA1200 GH 1092
Q169	TRTC-0087Y-SD0	TRANSISTOR N-H FREQ	KTC3206-Y TO92L
Q170	TRSC-01680-SB0	TRANSISTOR N-H FREQ	2SC4137 TO-126FP
Q171	TRSC-01540-SJ0	TRANSISTOR N-H FREQ	2SC4883A
Q172	TRSA-01450-SJ0	TRANSISTOR N-H FREQ	2SA1859A
▲ Q173	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ	2SC4468-Y TO3P
▲ Q174 Q175	TRTA-0090Y-SJ0 TRTC-0015G-SD0	TRANSISTOR P-H FREQ TRANSISTOR N-H FREQ	2SA1695-Y TO3P
Q276	TRTC-0013G-3D0	TRANSISTOR N-H FREQ	KTC3200~GR TO92 KRC107M W/RESIST TO92M
GETO	11110 01700 300	TRANSISTON IN TIT NEQ	KHC10/M W/HE3131 1092M
		MISCELLANEOUS	
PCB	PCSR-04800-11B	PCB-AMP	A1R-480
		DECISTORS	
R101	RCFT-E102J-000	RESISTORS RESISTOR-CARBON FILM	1Kohm 1/6W T
R102	RCFT-E102J-000	RESISTOR—CARBON FILM	1Kohm 1/5W J T 1Kohm 1/5W J T
R103	RCFT-E333J-000	RESISTOR - CARBON FILM	33Kohm 1/5W J T
R104	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R105	RCFT-E150J-000	RESISTOR-CARBON FILM	150hm 1/5W J T
R106	RCFT-E150J-000	RESISTOR-CARBON FILM	15ohm 1/5W J T
R107	RCFT-E751J-000	RESISTOR-CARBON FILM	750ohm 1/5W J T
R108	RCFT-E751J-000	RESISTOR CARBON FILM	750ohm 1/5W J T
R109 R110	RCFT-E150J-000 RCFT-E150J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	150hm 1/5W J T
R111	RCFT-E750J-000	RESISTOR—CARBON FILM	15ohm 1/5W J T 750ohm 1/5W J T

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Ref. No.	Part No.	Description	
R112	RCFT-E751J-000	RESISTOR-CARBON FILM	750ohm 1/5W J T
R113	RCFT-E680J-000	RESISTOR-CARBON FILM	68ohm 1/5W J T
R114	RCFT-E680J-000	RESISTOR-CARBON FILM	68ohm 1/5W J T
R115	RCFT-E681J-000	RESISTOR-CARBON FILM	680ohm 1/5W J T
R116	RCFT-E681J-000	RESISTOR-CARBON FILM	680ohm 1/5W J T
R117	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R118	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R119 R120	RCFT-E103J-000	RESISTOR - CARBON FILM	10Kohm 1/5W J T
R121	RCFT-E103J-000	RESISTOR CARBON FILM	10Kohm 1/5W J T
R122	RCFT-E151J-000 RCFT-E151J-000	RESISTOR—CARBON FILM	150ohm 1/5W J T
R123	RCFT-E182J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	150ohm 1/5W J T
R124	RCFT-E182J-000	RESISTOR-CARBON FILM	1.8Kohm 1/5W J T
R125	RCFT-E333J-000	RESISTOR-CARBON FILM	1.8Kohm 1/5W J T 33Kohm 1/5W J T
R126	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R127	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R128	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R129	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R130	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R131	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R132	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R133	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R134	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R135	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R136	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R137	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R138	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R139 R140	RCFT-E472J-000	RESISTOR-CARBON FILM	4.7Kohm 1/5W J T
R140	RCFT-E472J-000	RESISTOR - CARBON FILM	4.7Kohm 1/5W J T
R142	RCFT-E223J-000 RCFT-E223J-000	RESISTOR CARBON FILM	22Kohm 1/5W J T
R143	RCFT-E223J-000	RESISTOR - CARBON FILM	22Kohm 1/5W J T
R144	RCFT-E223J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	22Kohm 1/5W J T
R145	RCFT-E122J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T 1.2Kohm 1/5W J T
R146	RCFT-E122J-000	RESISTOR-CARBON FILM	1.2Kohm 1/5W J T
R147	RCFT-E821J-000	RESISTOR-CARBON FILM	820ohm 1/5W J T
R148	RCFT-E821J-000	RESISTOR-CARBON FILM	820ohm 1/5W J T
R149	RCFT-E821J-000	RESISTOR-CARBON FILM	820ohm 1/5W J T
R150	RCFT-E821J-000	RESISTOR-CARBON FILM	820ohm 1/5W J T
R151	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R152	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R153	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R154	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R155	RMOR-H470J-0C0	RESISTOR-METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R156	RMOR-H470J-0C0	RESISTOR - METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R157 R158	RMOR-H470J-0C0	RESISTOR-METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R159	RMOR-H470J-0C0 RCFT-E820J-000	RESISTOR - METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R160	RCFT-E820J-000	RESISTOR—CARBON FILM	82ohm 1/5W J T
▲ R161	RMFS-LR27J-0J0	RESISTOR-CARBON FILM RESISTOR-METAL PLATE	82ohm 1/5W J T
▲R162	RMFS-LR27J-0J0	RESISTOR-METAL PLATE	0.27ohm 5W J MPR-55R 0.27ohm 5W J MPR-55R
R163	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R164	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R165	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R166	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R167	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R168	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R169	RCFT-E390J-000	RESISTOR~CARBON FILM	39ohm 1/5W J T
R170	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J-T
R171	RCFT-E182J-000	RESISTOR-CARBON FILM	1.8Kohm 1/5W J T
R172 R173	RCFT-E182J-000	RESISTOR - CARBON FILM	1.8Kohm 1/5W J T
R174	RCFT-E202J-000 RCFT-E202J-000	RESISTOR—CARBON FILM	2Kohm 1/5W J T
R175	RCFT-E911J-000	RESISTOR - CARBON FILM	2Kohm 1/5W J T
R176	RCFT-E911J-000	RESISTOR - CARBON FILM	910ohm 1/5W J T
R177	RCFT-E682J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	910ohm 1/5W J T
R178	RCFT-E682J-000	RESISTOR-CARBON FILM	6.8Kohm 1/5W J T
R179	RCFT-E243J-000	RESISTOR—CARBON FILM	6.8Kohm 1/5W J T 24Kohm 1/5W J T
R180	RCFT-E243J-000	RESISTOR - CARBON FILM	24Kohm 1/5W J T
R181	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R182	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R183	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R184	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R185	RCFT-E150J-000	RESISTOR-CARBON FILM	15ohm 1/5W J T
R186	RCFT-E150J-000	RESISTOR-CARBON FILM	15ohm 1/5W J T
R187	RCFT-E?51J-000	RESISTOR-CARBON FILM	750ohm 1/5W J T

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Ref. No.	Part No.	Description	•
R188	RCFT-E751J-000	RESISTOR-CARBON FILM	750ohm 1/5W J T
R189	RCFT-E150J-000	RESISTOR-CARBON FILM	15ohm 1/5W J T
R190	RCFT-E150J-000	RESISTOR-CARBON FILM	15ohm 1/5W J T
R191	RCFT-E751J-000	RESISTOR-CARBON FILM	750ohm 1/5W J T
R192	RCFT-E751J-000	RESISTOR-CARBON FILM	750ohm 1/5W J T
R193	RCFT-E680J-000	RESISTOR-CARBON FILM	68ohm 1/5W J T
R194	RCFT-E680J-000	RESISTOR-CARBON FILM	68ohm 1/5W J T
R195	RCFT-E681J-000	RESISTOR-CARBON FILM	680ohm 1/5W J T
R196	RCFT-E681J-000	RESISTOR-CARBON FILM	680ohm 1/5W J T
R197	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R198	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R199	RCFT-E103J-000	RESISTOR-CARBON FILM	10Kohm 1/5W J T
R200	RCFT-E103J-000	RESISTOR-CARBON FILM	10Kohm 1/5W J T
R201	RCFT-E151J-000	RESISTOR-CARBON FILM	150ohm 1/5W J T
R202	RCFT-E151J-000	RESISTOR-CARBON FILM	150ohm 1/5W J T
R203	RCFT-E182J-000	RESISTOR-CARBON FILM	1.8Kohm 1/5W J T
R204	RCFT-E182J-000	RESISTOR-CARBON FILM	1.8Kohm 1/5W J T
R205	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R206	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R207	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R208	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R209	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R210	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R211	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R212	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R213	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R214	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R215	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R216	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R217	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R218	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R219	RCFT-E472J-000	RESISTOR-CARBON FILM	4.7Kohm 1/5W J T
R220	RCFT-E472J-000	RESISTOR-CARBON FILM	4.7Kohm 1/5W J T
R221	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R222	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R223	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R224 R225	RCFT-E223J-000	RESISTOR—CARBON FILM	22Kohm 1/5W J T
R226	RCFT-E122J-000 RCFT-E122J-000	RESISTOR - CARBON FILM	1.2Kohm 1/5W J T
R227	RCFT-E821J-000	RESISTOR - CARBON FILM	1.2Kohm 1/5W J T
R228	RCFT-E821J-000	RESISTOR—CARBON FILM	820ohm 1/5W J T
R229	RCFT-E821J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	820ohm 1/5W J T
R230	RCFT-E821J-000	RESISTOR - CARBON FILM	820ohm 1/5W J T 820ohm 1/5W J T
R231	RCFT-E820J-000	RESISTOR-CARBON FILM	820hm 1/5W J T
R232	RCFT-E820J-000	RESISTOR-CARBON FILM	820hm 1/5W J T
R233	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R234	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R235	RMOR-H470J-0C0	RESISTOR-METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R236	RMOR-H470J-0C0	RESISTOR-METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R237	RMOR-H470J-0C0	RESISTOR-METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R238	RMOR-H470J-0C0	RESISTOR-METAL OXIDE	47ohm 1W J ERG(X)1SJ470E
R239	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
R240	RCFT-E820J-000	RESISTOR-CARBON FILM	82ohm 1/5W J T
▲ R241	RMFS-LR27J-0J0	RESISTOR-METAL PLATE	0.27ohm 5W J MPR-55R
▲ R242	RMFS-LR27J-0J0	RESISTOR-METAL PLATE	0.27ohm 5W J MPR-55R
R243	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R244	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R245	RCFT-E390J-000	RESISTOR-CARBON FILM	39ohm 1/5W J T
R246	RCFT-E390J-000	RESISTOR - CARBON FILM	39ohm 1/5W J T
R247 R248	RCFT-E390J-000	RESISTOR - CARBON FILM	39ohm 1/5W J T
R249	RCFT-E390J-000	RESISTOR - CARBON FILM	39ohm 1/5W J T
R250	RCFT-E390J-000	RESISTOR - CARBON FILM	39ohm 1/5W J T
R251	RCFT-E390J-000 RCFT-E182J-000	RESISTOR - CARBON FILM	39ohm 1/5W J T
R252	RCFT-E182J-000	RESISTOR CARBON FILM	1.8Kohm 1/5W J T
R253	RCFT~E202J~000	RESISTOR - CARBON FILM	1.8Kohm 1/5W J T
R254	RCFT-E202J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	2Kohm 1/5W J T
R255	RCFT-E911J-000	RESISTOR—CARBON FILM	2Kohm 1/5W J T
R256	RCFT-E911J-000	RESISTOR—CARBON FILM	910ohm 1/5W J T
R257	RCFT-E682J-000	RESISTOR—CARBON FILM	910ohm 1/5W JT 6.8Kohm 1/5W J T
R258	RCFT-E682J-000	RESISTOR-CARBON FILM	6.8Kohm 1/5W J T
R259	RCFT-E243J-000	RESISTOR—CARBON FILM	24Kohm 1/5W J T
R260	RCFT-E243J-000	RESISTOR-CARBON FILM	24Kohm 1/5W J T
R261	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R262	RCFT-E333J-000	RESISTOR-CARBON FILM	33Kohm 1/5W J T
R263	RCFT-E150J-000	RESISTOR-CARBON FILM	15ohm 1/5W J T

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Ref. No.
                 Part No.
                                            Description
 R264
                 RCFT-E751J-000
                                            RESISTOR-CARBON FILM
                                                                           750ohm 1/5W J T
                 RCFT-E150J-000
RCFT-E751J-000
 R265
                                            RESISTOR-CARBON FILM
                                                                            15ohm 1/5W J T
 R266
                                            RESISTOR-CARBON FILM
                                                                            750ohm 1/5W J T
 R267
                 RCFT-E680J-000
                                            RESISTOR-CARBON FILM
                                                                            68ohm 1/5W J T
 R268
                 RCFT-E681J-000
                                            RESISTOR-CARBON FILM
                                                                            680ohm 1/5W J T
                                            RESISTOR-CARBON FILM
                 RCFT-E333J-000
 R269
                                                                            33Kohm 1/5W
 R270
                 RCFT-E103J-000
                                            RESISTOR-CARBON FILM
                                                                            10Kohm 1/5W J
                 RCFT-E151J-000
 R271
                                            RESISTOR-CARBON FILM
                                                                            150ohm 1/5W J T
 R272
                 RCFT-E182J-000
                                            RESISTOR-CARBON FILM
                                                                            1.8Kohm 1/5W
 R273
                 RCFT-E333J-000
                                            RESISTOR-CARBON FILM
                                                                           33Kohm 1/5W J
                 RCFT-E561J-000
 R274
                                            RESISTOR-CARBON FILM
                                                                            560ohm 1/5W J
                 RCFT-E561J-000
 R275
                                            RESISTOR-CARBON FILM
                                                                           560ohm 1/5W J
 R276
                 RCFT-E561J-000
                                           RESISTOR-CARBON FILM
                                                                           560ohm 1/5W J T
                                           RESISTOR-CARBON FILM
 R277
                 RCFT-E561J-000
                                                                           560ohm 1/5W J
 R278
                 RCFT-E561J-000
                                           RESISTOR-CARBON FILM
                                                                           560ohm 1/5W J
 R279
                 RCFT-E561J-000
                                            RESISTOR-CARBON FILM
                                                                           560ohm 1/5W J
 R280
                 RCFT-E472J-000
                                           RESISTOR-CARBON FILM
                                                                           4.7Kohm 1/5W
 R281
                 RCFT-E223J-000
                                           RESISTOR-CARBON FILM
                                                                           22Kohm 1/5W J T
                 RCFT-E223J-000
 R282
                                           RESISTOR-CARBON FILM
                                                                           22Kohm 1/5W
 R283
                 RCFT-E122J-000
                                            RESISTOR-CARBON FILM
                                                                           1.2Kohm 1/5W J T
 R284
                 RCFT-E821J-000
                                           RESISTOR-CARBON FILM
                                                                           820ohm 1/5W J T
 R285
                 RCFT-E821J-000
                                           RESISTOR-CARBON FILM
                                                                           820ohm 1/5W J
 R286
                 RCFT-E820J-000
                                           RESISTOR-CARBON FILM
                                                                           82ohm 1/5W J
                 RCFT-E820J-000
 R287
                                           RESISTOR-CARBON FILM
                                                                           82ohm 1/5W J T
                                                                           47ohm 1W J ERG(X)1SJ470E
 R288
                 RMOR-H470J-0C0
                                           RESISTOR-METAL OXIDE
 R289
                 RMOR-H470J-0C0
                                           RESISTOR-METAL OXIDE
                                                                           47ohm 1W J ERG(X)1SJ470E
                                           RESISTOR-CARBON FILM
 R290
                 RCFT-E820J-000
                                                                           82ohm 1/5W J T
                 RMFS-LR27J-0J0
RCFT-E390J-000
▲R291
                                           RESISTOR-METAL PLATE
                                                                           0.27ohm 5W J MPR-55R
 R292
                                                                           39ohm 1/5W J T
39ohm 1/5W J T
                                           RESISTOR-CARBON FILM
                 RCFT-E390J-000
 R293
                                           RESISTOR-CARBON FILM
 R294
                 RCFT-E390J-000
                                           RESISTOR-CARBON FILM
                                                                           39ohm 1/5W J T
 R295
                 RCFT-E390J-000
                                           RESISTOR-CARBON FILM
                                                                           39ohm 1/5W J T
 R296
                 RCFT-E182J-000
                                           RESISTOR-CARBON FILM
                                                                           1.8Kohm 1/5W J T
                                                                           2Kohm 1/5W J
910ohm 1/5W J
 R297
                 RCFT-E202J-000
                                           RESISTOR-CARBON FILM
                 RCFT-E911J-000
 R298
                                           RESISTOR-CARBON FILM
 R299
                 RCFT-E682J-000
                                           RESISTOR-CARBON FILM
                                                                           6.8Kohm 1/5W J T
                 RCFT-E243J-000
 R300
                                           RESISTOR-CARBON FILM
                                                                           24Kohm 1/5W J T
 R301
                 RCFT-E334J-000
                                           RESISTOR-CARBON FILM
                                                                           330Kohm 1/5W J T
                 2-1. INPUT & PRO-LOGIC P.C.BOARD
TRANSISTORS
 Q401
                 TRTC-01700-SD0
                                           TRANSISTOR N-H FREQ
                                                                           KRC107M W/RESIST TO92M
                 TRTA-00940-SD0
 Q402
                                           TRANSISTOR P-H FREQ
                                                                           KRA107M W/RESIST TO92M
 Q403
                 TRTC-01700-SD0
                                           TRANSISTOR N-H FREQ
                                                                           KRC107M W/RESIST TO92M
 Q404
                 TRTC-0016G-SD0
                                           TRANSISTOR N-H FREQ
                                                                           KTC3198-GR
                                                                                           TO92
                 TRTC-0016G-SD0
 Q405
                                           TRANSISTOR N-H FREQ
                                                                           KTC3198-GR
                                                                                           TO92
                                           RESISTORS
 R401
                                           RESISTOR-CARBON FILM RESISTOR-CARBON FILM
                 RCFT-E334J-000
                                                                           330Kohm 1/5W J T
 R402
                 RCFT-E243J-000
                                                                           24Kohm 1/5W J
                 RCFT-E243J-000
 R403
                                           RESISTOR-CARBON FILM
                                                                           24Kohm 1/5W J
 R404
                 RCFT-E513J-000
                                           RESISTOR-CARBON FILM
                                                                           51Kohm 1/5W J
                                           RESISTOR-CARBON FILM
 R405
                 RCFT-E513J-000
                                                                           51Kohm 1/5W J
                 RCFT-E512J-000
                                           RESISTOR-CARBON FILM RESISTOR-CARBON FILM
 R406
                                                                           5.1Kohm 1/5W J
                 RCFT-E512J-000
 R407
                                                                           5.1Kohm 1/5W J
 R408
                 RCFT-E103J-000
                                           RESISTOR-CARBON FILM
                                                                           10Kohm 1/5W J
 R409
                 RCFT-E105J-000
                                           RESISTOR-CARBON FILM
                                                                           1Mohm 1/5W J T
                                           RESISTOR-CARBON FILM
                 RCFT-E225J-000
 R410
                                                                           2.2Mohm 1/5W J
                 RCFT-E104J-000
 R411
                                           RESISTOR-CARBON FILM
                                                                           100Kohm 1/5W J T
                 RCFT-E224J-000
 R412
                                           RESISTOR-CARBON FILM
                                                                           220Kohm 1/5W J T
 R413
                 RCFT-E223J-000
                                           RESISTOR-CARBON FILM
                                                                           22Kohm 1/5W J
                 RCFT-E223J-000
 R414
                                           RESISTOR-CARBON FILM
                                                                           22Kohm 1/5W J
 R415
                 RCFT-E473J-000
                                           RESISTOR-CARBON FILM
                                                                           47Kohm 1/5W J
 R416
                 RCFT-E153J-000
                                           RESISTOR-CARBON FILM
                                                                           15Kohm 1/5W J
                 RCFT-E752J-000
 R417
                                           RESISTOR-CARBON FILM
                                                                           7.5Kohm 1/5W J T
 R418
                 RCFT-E473J-000
                                           RESISTOR-CARBON FILM
                                                                           47Kohm 1/5W J
 R419
                 RCFT-E752J-000
                                           RESISTOR-CARBON FILM
                                                                           7.5Kohm 1/5W J
                 RCFT-E153J-000
 R420
                                           RESISTOR-CARBON FILM
                                                                           15Kohm 1/5W J T
 R421
                 RCFT-E203J-000
                                           RESISTOR-CARBON FILM
                                                                           20Kohm 1/5W J
 R422
                 RCFT-E102J-000
                                           RESISTOR-CARBON FILM
                                                                           1Kohm 1/5W J T
 R423
                 RCFT-E471J-000
                                           RESISTOR-CARBON FILM
                                                                           470ohm 1/5W J T
 R424
                 RCFT-E102J-000
                                           RESISTOR-CARBON FILM
                                                                           1Kohm 1/5W J T
 R425
                 RCFT-E223J-000
                                           RESISTOR-CARBON FILM
                                                                           22Kohm 1/5W J T
                 RCFT~E102J-000
 R426
                                           RESISTOR-CARBON FILM
                                                                           1Kohm 1/5W J
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R427 RCFT=E152J-000 RESISTOR-CARBON FILM 1.5Kohm 1/5W J T R428 RCFT=E471J-000 RESISTOR-CARBON FILM 470ohm 1/5W J T R429 RCFT-E104J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R430 RCFT=E470J-000 RESISTOR-CARBON FILM 470hm 1/5W J T R431 RCFT=E223J-000 RESISTOR-CARBON FILM 150km 1/5W J T R432 RCFT=E102J-000 RESISTOR-CARBON FILM 150km 1/5W J T R433 RCFT=E102J-000 RESISTOR-CARBON FILM 150km 1/5W J T R435 RCFT=E471J-000 RESISTOR-CARBON FILM 470ohm 1/5W J T R436 RCFT=E470J-000 RESISTOR-CARBON FILM 470ohm 1/5W J T R437 RCFT-E102J-000 RESISTOR-CARBON FILM 470ohm 1/5W J T R438 RCFT-E102J-000 RESISTOR-CARBON FILM 470hm 1/5W J T R439 RCFT-E102J-000 RESISTOR-CARBON FILM 1Kohm 1/5W J T R440 RCFT-E102J-000 RESISTOR-CARBON FILM 1Kohm 1/5W J T R441 RCFT-E102J-000 RESISTOR-CARBON FILM 1Kohm 1/5W J T R442				-
R428 RCFT=6471J=000 RESISTOR-CARBON FILM 470chm 1/5w J T R430 RCFT=6470J=000 RESISTOR-CARBON FILM 100kchm 1/5w J T R432 RCFT=622J=000 RESISTOR-CARBON FILM 100kchm 1/5w J T R432 RCFT=622J=000 RESISTOR-CARBON FILM 100kchm 1/5w J T R432 RCFT=622J=000 RESISTOR-CARBON FILM 100kchm 1/5w J T 1442 RCFT=622J=000 RESISTOR-CARBON FILM 100kchm 1/5w J T 1443 RCFT=610J=000 RESISTOR-CARBON FILM 100kchm 1/5w J T 1444 RCFT=610J=000 RESIS	Ref. No.	Part No.	Description	
### ### ### ### ### ### ### ### ### ##	R427	RCFT-E152J-000	RESISTOR-CARBON FILM	1.5Kohm 1/5W J T
R430 RCFT-E104J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R431 RCFT-E102J-000 RESISTOR-CARBON FILM 470km 1/5W J T R432 RCFT-E23J-000 RESISTOR-CARBON FILM 180km 1/5W J T R432 RCFT-E23J-000 RESISTOR-CARBON FILM 180km 1/5W J T R432 RCFT-E23J-000 RESISTOR-CARBON FILM 180km 1/5W J T R432 RCFT-E102J-000 RESISTOR-CARBON FILM 180km 1/5W J T R436 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R436 RCFT-E104J-000 RESISTOR-CARBON FILM 170km 1/5W J T R438 RCFT-E102J-000 RESISTOR-CARBON FILM 170km 1/5W J T R438 RCFT-E102J-000 RESISTOR-CARBON FILM 170km 1/5W J T R439 RCFT-E102J-000 RESISTOR-CARBON FILM 180km 1/5W J T R440 RCFT-E102J-000 RESISTOR-CARBON FILM 180km 1/5W J T R440 RCFT-E102J-000 RESISTOR-CARBON FILM 180km 1/5W J T R441 RCFT-E102J-000 RESISTOR-CARBON FILM 180km 1/5W J T R442 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R444 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R444 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R444 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R446 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R448 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T R448 RCFT-E104J-000 RESISTOR-CARBON FILM 180km 1/5W J T 18	R428	BCFT-E471J-000		
### ### ### ### ### ### ### ### ### ##				
### ### ### ### ### ### ### ### ### ##				
### ### ### ### ### ### ### ### ### ##				
R433 RCFT-E102J-000 RESISTOR-CARBON FILM 1Kohm 1/SW J T R435 RCFT-E471J-000 RESISTOR-CARBON FILM 470chm 1/SW J T R436 RCFT-E470J-000 RESISTOR-CARBON FILM 470chm 1/SW J T R437 RCFT-E470J-000 RESISTOR-CARBON FILM 470chm 1/SW J T R438 RCFT-E102J-000 RESISTOR-CARBON FILM 470chm 1/SW J T R438 RCFT-E102J-000 RESISTOR-CARBON FILM 470chm 1/SW J T R440 RCFT-E102J-000 RESISTOR-CARBON FILM 1Kohm 1/SW J T R441 RCFT-E102J-000 RESISTOR-CARBON FILM 1Kohm 1/SW J T R442 RCFT-E104J-000 RESISTOR-CARBON FILM 1Kohm 1/SW J T R442 RCFT-E104J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R442 RCFT-E104J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R444 RCFT-E101J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R444 RCFT-E101J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R444 RCFT-E101J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R446 RCFT-E101J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R446 RCFT-E101J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R446 RCFT-E103J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R445 RCFT-E103J-000 RESISTOR-CARBON FILM 100kchm 1/SW J T R446 RCFT				
R4944 RCFT-E162J-000				
R495 RCFT-E47IJ-000	R433	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R498 RCFT-E104J-000 RESISTOR-CARBON FILM 100Kchm 1/SW J T 1438 RCFT-E102J-000 RESISTOR-CARBON FILM 1470hm 1/SW J T 1444 RCFT-E102J-000 RESISTOR-CARBON FILM 1480hm 1/SW J T 1444 RCFT-E104J-000 RESISTOR-CARBON FILM 1480hm 1/SW J T 1444 RCFT-E564J-000 RESI	R434	RCFT-E152J-000	RESISTOR-CARBON FILM	1.5Kohm 1/5W JT
R436 RCFT=E104J-000 RESISTOR—CARBON FILM 470hm 1/5W J T R438 RCFT=E102J-000 RESISTOR—CARBON FILM 1K0hm 1/5W J T R440 RCFT=E102J-000 RESISTOR—CARBON FILM 1K0hm 1/5W J T R440 RCFT=E102J-000 RESISTOR—CARBON FILM 1K0hm 1/5W J T R440 RCFT=E102J-000 RESISTOR—CARBON FILM 1K0hm 1/5W J T R442 RCFT=E104J-000 RESISTOR—CARBON FILM 1K0hm 1/5W J T R442 RCFT=E104J-000 RESISTOR—CARBON FILM 100K0hm 1/5W J T R442 RCFT=E104J-000 RESISTOR—CARBON FILM 100K0hm 1/5W J T R444 RCFT=E104J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R445 RCFT=E104J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R446 RCFT=E104J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R445 RCFT=E104J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R445 RCFT=E104J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R445 RCFT=E54J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R455 RCFT=E564J-000 RESISTOR—CARBON FILM 7500hm 1/5W J T R452 RCFT=E564J-000 RESISTOR—CARBON FILM 7500hm 1/5W J T R454 RCFT=E104J-000 RESISTOR—CARBON FILM 7600hm 1/5W J T R456 RCFT=E73J-000 RESISTOR—CARBON FILM 7600hm 1/5W J T R456 RCFT=E747J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R456 RCFT=E747J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R458 RCFT=E647J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R458 RCFT=E647J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R458 RCFT=E47J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R458 RCFT=E47J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R458 RCFT=E47J-000 RESISTOR—CARBON FILM 100k0hm 1/5W J T R458 RCFT=E47J-00	R435	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W.LT
R437 RCFT-E470J-000 RESISTOR-CARBON FILM	R436	BCFT-F104J-000		
R438 RCFT=E102J=000 RESISTOR=-CARBON FILM				
R4499 RCFT-E102J-000 RESISTOR-CARBON FILM				
## R441 ## RCFT-E102J-000 ## RESISTOR-CARBON FILM				
### RCFT-E104J-000				
R442 RCFT=E104J=000		RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R444 RCFT-E104J-000 RESISTOR-CARBON FILM 100kbm 1/5W J T	R441	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R444 RCFT-E104J-000	R442	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R444	R443	RCFT-E104J-000		
R445 RCFT-E1012-000 RESISTOR-CARBON FILM 100.0mm 1/5W J T R447 RCFT-E1022-000 RESISTOR-CARBON FILM 16.0mm 1/5W J T R448 RCFT-E1041-000 RESISTOR-CARBON FILM 16.0mm 1/5W J T R449 RCFT-E1041-000 RESISTOR-CARBON FILM 100.0mm 1/5W J T R449 RCFT-E1041-000 RESISTOR-CARBON FILM 100.0mm 1/5W J T R450 RCFT-E7511-000 RESISTOR-CARBON FILM 100.0mm 1/5W J T R451 RCFT-E7511-000 RESISTOR-CARBON FILM 750.0mm 1/5W J T R451 RCFT-E7511-000 RESISTOR-CARBON FILM 750.0mm 1/5W J T R452 RCFT-E5641-000 RESISTOR-CARBON FILM 750.0mm 1/5W J T R453 RCFT-E5641-000 RESISTOR-CARBON FILM 750.0mm 1/5W J T R453 RCFT-E5641-000 RESISTOR-CARBON FILM 750.0mm 1/5W J T R455 RCFT-E4731-000 RESISTOR-CARBON FILM 750.0mm 1/5W J T R455 RCFT-E4731-000 RESISTOR-CARBON FILM 477.0mm 1/5W J T R455 RCFT-E4731-000 RESISTOR-CARBON FILM 477.0mm 1/5W J T R456 RCFT-E1041-000 RESISTOR-CARBON FILM 100.0mm 1/5W J T R459 RCFT-E4711-000 RESISTOR-CARBON FILM 100.0mm 1/5W J T R459 RCFT-E4711-000 RESISTOR-CARBON FILM 170.0mm 1/5W J T R459 RCFT-E4711-000 RESISTOR-CARBON FILM 170.0mm 1/5W J T R460 RCFT-E1041-000 RESISTOR-CARBON FILM 170.0mm 1/5W J T R460 RCFT-E4711-000 RESISTOR-CARBON FILM 170.0mm 1/5W J T R460 RCFT-E4711-000 RESISTOR-CARBON FILM 170.0mm 1/5W J T				
R446				
R447 RCFT-E102J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R449 RCFT-E104J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R450 RCFT-E751J-000 RESISTOR-CARBON FILM 7500hm 1/5W J T R451 RCFT-E751J-000 RESISTOR-CARBON FILM 7500hm 1/5W J T R451 RCFT-E751J-000 RESISTOR-CARBON FILM 7500hm 1/5W J T R451 RCFT-E751J-000 RESISTOR-CARBON FILM 550Kohm 1/5W J T R453 RCFT-E564J-000 RESISTOR-CARBON FILM 550Kohm 1/5W J T R453 RCFT-E564J-000 RESISTOR-CARBON FILM 550Kohm 1/5W J T R455 RCFT-E473J-000 RESISTOR-CARBON FILM 47Kohm 1/5W J T R455 RCFT-E473J-000 RESISTOR-CARBON FILM 47Kohm 1/5W J T R455 RCFT-E473J-000 RESISTOR-CARBON FILM 47Kohm 1/5W J T R455 RCFT-E473J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R456 RCFT-E473J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R459 RCFT-E473J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R460 RCFT-E473J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R466 RCFT-E473J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R466 RCFT-E104J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R473 RCFT-E271J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R473 RCFT-E271J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R473 RCFT-E271J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R479 RCFT-E271J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R479 RCFT-E271J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T R488 RCFT-E103J-000 RE				
R448				
R459 RCFT-E104J-000 RESISTOR-CARBON FILM 100Kohm 1/5W J T			RESISTOR-CARBON FILM	
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R501 RCFT-E471J-000 RESISTOR-CARBON FILM 470ohm 1/5W J T				
Deed Deet Frank and				
HOFI TE4713 TOUL HESISTOR TOARBON FILM 470ohm 1/5W J T				
	HOUZ	NOP1-E4713-000	MESISTOR-CARBON FILM	4/Uohm 1/5W J T

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Ref. No.	Part No.	Description	
R503	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W J T
R504	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W J T
R505	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W J T
R506	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R507	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R508	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R509	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R510	RCFT-E103J-000	RESISTOR-CARBON FILM	10Kohm 1/5W J T
R511	RCFT-E103J-000	RESISTOR-CARBON FILM	10Kohm 1/5W J T
R512	RCFT-E221J-000	RESISTOR-CARBON FILM	220ohm 1/5W J T
R513	RCFT-E221J-000	RESISTOR-CARBON FILM	2200hm 1/5W J T
R514	RCFT-E104J-000	RESISTOR—CARBON FILM	
R515	RCFT-E221J-000		100Kohm 1/5W J T
R516		RESISTOR - CARBON FILM	220ohm 1/5W J T
R517	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R518	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R519	RCFT-E221J-000	RESISTOR-CARBON FILM	220ohm 1/5W J T
R520	RCFT-E243J-000	RESISTOR-CARBON FILM	24Kohm 1/5W J T
R521	RCFT-E224J-000	RESISTOR-CARBON FILM	220Kohm 1/5W J T
R522	RCFT-E243J-000	RESISTOR-CARBON FILM	24Kohm 1/5W J T
R523	RCFT-E224J-000	RESISTOR-CARBON FILM	220Kohm 1/5W J T
R525	RCFT-E100J-000	RESISTOR-CARBON FILM	10ohm 1/5W J T
R526	RCFT-E100J-000	RESISTOR-CARBON FILM	10ohm 1/5W J T
R527	RCFT-E241J-000	RESISTOR-CARBON FILM	240ohm 1/5W J T
R528	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
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		CAPACITORS	
C401	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C402	CEET-J2R2M-CI0	CAPACITOR E/ALUMINUM	2.2uF M 50V 5x11 T
C403	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	
C404	CFMT-N223J-EK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C405	CFMT-N473J-GK0	CAPACITOR F/POLYESTR	0.022uF J 100V 7.4x13 T
C406	CFMT-N473J-GK0		0.047uF J 100V 8.9x13. T
C407	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.047uF J 100V 8.9x13. T
C408		CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C408	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
	CFMT-N223J-EKO	CAPACITOR F/POLYESTR	0.022uF J 100V 7.4x13 T
C410	CFMT-L224J-EF0	CAPACITOR F/POLYESTR	0.22uF J 63V 7.5x8.5 TL
C411	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C412	CFMT-L224J-EF0	CAPACITOR F/POLYESTR	0.22uF J 63V 7.5x8.5 TL
C413	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C414	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C415	CFMT-L224J-EF0	CAPACITOR F/POLYESTR	0.22uF J 63V 7.5x8.5 TL
C416	CFMT-L224J-EF0	CAPACITOR F/POLYESTR	0.22uF J 63V 7.5x8.5 TL
C417	CFMT-N473J-GK0	CAPACITOR F/POLYESTR	0.047uF J 100V 8.9x13. T
C418	CFMT-N562J-DJ0	CAPACITOR F/POLYESTR	-0.0056uF J 100V 5.8x12 T
C419	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C420	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C421	CFMT-L684J-F10	CAPACITOR F/POLYESTR	0.68uF J 63V 8x11.5 TL
C422	CFST-O821J-CJ0	CAPACITOR F/STYROL	820PF J 125V 5.5x12 T
C423	CCAT-J471K-AAB	CAPACITOR CERAMIC	470PF K 50V B T
C424	CFMT-N122J-CJ0	CAPACITOR F/POLYESTR	0.0012uF J 100V 5.4x12 T
C425	CFMT-N103J-DE0	CAPACITOR F/POLYESTR	0.01uF J 100V 6x7 T
C424	CFMT-N122J-CJ0	CAPACITOR F/POLYESTR	0.0012uF J 100V 5.4x12 T
C426	CFMT-N683J-HK0	CAPACITOR F/POLYESTR	0.068uF J 100V 9.9x14 T
C427	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12,1x14 T
C428	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C429	CFMT-N683J-HK0	CAPACITOR F/POLYESTR	0.068uF J 100V 9.9x14 T
C430	CFMT-N103J-DE0	CAPACITOR F/POLYESTR	0.01uF J 100V 6x7 T
C431	CFMT-L105J-FJ0	CAPACITOR F/POLYESTR	1uF J 63V 8x12.5 TL
C432	CEET-F220M-CIO	CAPACITOR E/ALUMINUM	22uF M 25V 5x11 T
C433	CEET-J2R2M-CI0	CAPACITOR E/ALUMINUM	2.2uF M 50V 5x11 T
C434	CEET-J2R2M-CIO	CAPACITOR E/ALUMINUM	
C435	CEET-J2R2M-CI0	CAPACITOR E/ALUMINUM	2.2uF M 50V 5x11 T
C436	CFMT-N104J-JK0		2.2uF M 50V 5x11 T
C437	CEET-F470M-CI0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C437	CEET-F470M-CIO CEET-E221M-FIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C436 C439		CAPACITOR E/ALUMINUM	220uF M 16V 8x11.5 T
	CEET-F220M-CIO	CAPACITOR E/ALUMINUM	22uF M 25V 5x11 T
C440	CFMT-N562J-DJ0	CAPACITOR F/POLYESTR	0.0056uF J 100V 5.8x12 T
C441	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11 T
C442	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11 T
C443	CCCT-J681K-0BB	CAPACITOR CERAMIC	680PF K 50V B T
C444	CCCT-J681K-0BB	CAPACITOR CERAMIC	680PF K 50V B T
C445	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C446	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C447	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T

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Ref. No.	Part No.	Description	
C448 · · · · · · · · · · · · · · · · · ·	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C449 C450	CFMT-N104J-JK0	CAPACITOR F/POLYESTR	0.10uF J 100V 12.1x14 T
C450 C451	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR	0.0015uF J 100V 5.4x12 T
	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR	0.0015uF J 100V 5.4x12 T
C452	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C453	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C455	CCAT-J470J-AAZ	CAPACITOR CERAMIC	47PF J 50V SL T
C456	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C457	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C458	CCAT-J470J-AAZ	CAPACITOR CERAMIC	47PF J 50V SL T
C459	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C460	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C463	CEET-E101M-DI0	CAPACITOR E/ALUMINUM	100uF M 16V 6.3x11 T
C464	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11 T
C465	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C466	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C467	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C468	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C469	CEET-F470M-CI0	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C470	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C471	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C473	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C474	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T
C475	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T
C474	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C475	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C476	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C477	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C478	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C479	CCAT-J102K-AAB	CAPACITOR CERAMIC	1000PF K 50V B T
C480	CCAT-J102K-AAB	CAPACITOR CERAMIC	1000PF K 50V B T
C481	CFMT-N562J-DJ0	CAPACITOR F/POLYESTR	0.0056uF J 100V 5.8x12 T
C482	CFMT-N562J-DJ0	CAPACITOR F/POLYESTR	0.0056uF J 100V 5.8x12 T
C483	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR	0.0015uF J 100V 5.4x12 T
C484	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR	0.0015uF J 100V 5.4x12 T
C485	CEET-D101M-CI0	CAPACITOR E/ALUMINUM	100uF M 10V 5x11 T
C486	CEET-D101M-CI0	CAPACITOR E/ALUMINUM	100uF M 10V 5x11 T
C487 C488	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C489	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C499	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR	0.0015uF J 100V 5.4x12 T
C490 C491	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR	0.0015uF J 100V 5.4x12 T
C491	CEET-J4R7M-CI0 CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C493	CEET-J4R7M-CIO	CAPACITOR E/ALLMINUM	4.7uF M 50V 5x11 T
C494	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C495	CEET-F470M-CIO	CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C496	CEET-F470M-C10	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C497	CEET-F470M-C10		47uF M 25V 5x11 T 47uF M 25V 5x11 T
C499	CCAT-J101K-AAB	CAPACITOR E/ALUMINUM CAPACITOR CERAMIC	
C500	CEET-F470M-CIO	CAPACITOR CERAMIC	100PF K 50V B T
C501	CEET-J1ROM-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T 1.0uF M 50V 5x11 T
C502	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	
C503	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T 47uF M 25V 5x11 T
C504	CCAT-J473Z-AAF	CAPACITOR CERAMIC	47uF M 25V 5x11 T 0.047uF Z 50V F T
C505	CCAT-F103Z-AAF	CAPACITOR CERAMIC	0.01uF Z 25V F T
C506	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
C507	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
C508	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
C509	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
C510	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
C511	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
C512	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C513	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C514	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C515	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C516	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C517	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C518	CCTT-31013-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C519	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C520	CCTT-J101J-0CZ		100PF J 50V SL T "AVR18 ONLY"
C520	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C522	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C523	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C523	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C525	CCTT-J1013-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
C526	CCTT-J101J-0CZ	CAPACITOR CERAMIC CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY"
5020	3071 37013 002	UNI AUTION CENAMIC	100PF J 50V SLT "AVR18 ONLY"

Ref. No. C527 C528 C529 C530 C531 C532 C533 C534 C535 C536 C537 C538 C539 C540 C541 C542 C543 C545 C546 C547 C548 C549 C5549 C5549 C5540 C551	Part No. CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CCTT-J101J-OCZ CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-J4R7M-CIO CEET-F470M-CIO CEET-F470M-CIO CEET-F470M-CIO CEET-F470M-CIO CEET-F470M-CIO CEET-F470M-CIO CEET-J1R0M-CIO CCAT-J101K-AAB CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J104Z-AAF	Description CAPACITOR CERAMIC CAPACITOR E/ALUMINUM CAPACITOR CERAMIC	100PF J 50V SL T "AVR18 ONLY" 14.7uF M 50V 5x11 T "AVR18 ONLY" 4.7uF M 50V 5x11 T T T T T T T T T T T T T T T T T T
D401	DDTS-00070-SO0	DIODES DIODE-SI DIODE-SI DIODE ZENER DIODE ZENER DIODE SI DIODE-SI DIODE-SI	1SS133 (40V 0.11A) DO-40 T
D402	DDTS-00070-SO0		1SS133 (40V 0.11A) DO-40 T
D403	DDTZ-G056B-SOS		MTZJ5.6B 5.45-5.73 DO34 T
D404	DDTZ-G100B-SO0		MTZ10B 9.41-9.90 DO40 T
D405	DDTS-00070-SO0		1SS133 (40V 0.11A) DO-40 T
D406	DDTS-00070-SO0		1SS133 (40V 0.11A) DO-40 T
IC401	ICOP-00432-SG0	INTEGRATED CIRCUITS IC OP AMP IC FUNCTION SELECTOR IC FUNCTION SELECTOR IC DUAL OP AMP IC DUAL OP AMP IC BIPOLAR SWITCH IC DOLBY IC DUAL OP AMP	NJM2068DD DIP8
IC402	ICDG-00260-S10		LC7821 DIP30S
IC403	ICDG-00260-S10		LC7821 DIP30S
IC404	ICOP-00134-SG0		NJM4558M SOP8
IC405	ICOP-00134-SG0		NJM4558M SOP8
IC406	ICLN-03690-S10		LC4966 DIP14
IC407	ICLN-03310-SG0		NJW-1103F QFP80
IC408	ICOP-00134-SG0		NJM4558M SOP8
CN401 CN402 CN403 CN404	KNCW-01510-BS9 KNCW-01510-CS9 KNCW-00240-3T9 KNCW-00240-3T9	CONNÉCTORS CONNECTOR-WAFER CONNECTOR-WAFER CONNECTOR-WAFER CONNECTOR-WAFER	35237-1110 2M/M 11P 35237-1210 2M/M 12PIN 53014-03 2.0mm WHT 53014-03 2.0mm WHT
L401	KI0T-4470K-003	MISCELLANEOUS COIL-INDUCTOR COIL-INDUCTOR RESONATOR SOCKET-RCA SOCKET-RCA SOCKET-RCA PCB-INPUT & PRO LOGIC	47uH K LAL02 T "AVR18 ONLY"
L402	KI0T-4470K-003		47uH K LAL02 T "AVR18 ONLY"
X401	KTRE-00091-040		CST4.00MGW-TF01 T05
JK401	SKRC-00400-041		JK0400450N
JK402	SKRC-00420-061		JK0600460N
JK403	SKRC-00420-061		JK0600460N
PCB	PCSR-04800-11B		A1R-480
CN901 CN902	2-2. VIDEO P.C.BOARD KNCW-01510-9S9 KNCW-00240-2T9	CONNECTORS CONNECTOR-WAFER CONNECTOR-WAFER	35237-0910 2M/M 9P 53014-02 2.0mm WHT
C901	CEET-F330M-CI0	CAPACITORS CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM	33uF M 25V 5x11 T
C902	CEET-D47. <i>M</i> -FI1		470uF M 10V 8x11.5 U T
C903	CEET-F330M-CI0		33uF M 25V 5x11 T
C904	CEET-F330M-CI0		33uF M 25V 5x11 T
C905	CEET-D471M-FI1		470uF M 10V 8x11.5 U T
C907	CEET-D471M-FI1		470uF M 10V 8x11.5 U T

Ref. No. C908 C909 C910	Part No. CCCT-J104Z-0FF CCCT-J104Z-0FF CCAT-J104Z-AAF CCAT-J120J-AAC	Description CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR CERAMIC	0.1uF Z 50V F T 0.1uF Z 50V F T 0.1uF Z 50V F T 12PF J 50V C T
1C901	ICLN-03650-SB0	INTEGRATED CIRCUITS IC VIDEO S/W	BA7625 DIP16
R901 R902 R903 R904 R905 R906 R907 R908 R909 R910 R911	RCFT-E750J-000 RCFT-E750J-000 RCFT-E101J-000 RCFT-E101J-000 RCFT-E750J-000 RCFT-E750J-000 RCFT-E101J-000 RCFT-E101J-000 RCFT-E101J-000 RCFT-E3R3J-000 RCFT-E103J-000	RESISTORS RESISTOR—CARBON FILM	750hm 1/5W J T 750hm 1/5W J T 1000hm 1/5W J T 1000hm 1/5W J T 750hm 1/5W J T 750hm 1/5W J T 750hm 1/5W J T 1000hm 1/5W J T 1000hm 1/5W J T 1000hm 1/5W J T 10K0hm 1/5W J T
D901 D902 D903 D904	DDTS-00070-SO0 DDTS-00070-SO0 DDTS-00070-SO0 DDTS-00070-SO0	DIODES DIODE-SI DIODE-SI DIODE-SI DIODE-SI	1SS133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T
JK901 JK902 PCB	SKRC-00470-031 SKRC-00680-021 PCSR-04800-11B	MISCELLANEOUS SOCKET-RCA PIN JACK PCB-VIDEO	JC0300125N 3P JC0200095N 2P A1R-480C
Q901 Q902	TRTA-0008Y-SD0 TRTA-0008Y-SD0	TRANSISTORS TRANSISTOR P-H FREQ TRANSISTOR P-H FREQ	KTA1266-Y TO92 KTA1266-Y TO92
C801 C802 C803 C804 C805 C806 C807 C808 C809 C810 C811 C812 C813 C814 C815 C816 C817 C818 C819 C820 C821 C822 C823 C824 C825 C826 C827 C828 C829 C829 C829 C821 C828 C829 C821 C821 C821 C821 C822 C823 C824 C825 C826 C827 C828 C829 C829 C829 C829 C829 C829 C829	3. PREQUT P.C.BOARD CCAT-J101K-AAB CCAT-J101K-AAB CFMT-N152J-CJ0 CFMT-N152J-CJ0 CFMT-N104J-JK0 CFMT-N104J-JK0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-F470M-CI0 CEET-F470M-CI0 CEET-J100M-CI0 CEET-J100M-CI0 CCAT-J101K-AAB CCAT-J101K-AAB CFMT-N152J-CJ0 CFMT-N152J-CJ0 CFMT-N104J-JK0 CFMT-N104J-JK0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J4R7M-CI0 CEET-J100M-CI0 CEET-J10M-CI0	CAPACITORS CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR E/ALUMINUM CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR E/ALUMINUM CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR	100PF K 50V B T 100PF K 50V B T 0.0015uF J 100V 5.4x12 T 0.0015uF J 100V 5.4x12 T 0.10uF J 100V 12.1x14 T 0.10uF J 100V 12.1x14 T 4.7uF M 50V 5x11 T 4.7uF M 50V 5x11 T 4.7uF M 25V 5x11 T 10uF M 50V 5x11 T 10uPF K 50V B T 0.0015uF J 100V 12.1x14 T 0.10uF J 100V 12.1x14 T 0.10uF J 100V 12.1x14 T 4.7uF M 50V 5x11 T 4.7uF M 50V 5x11 T 4.7uF M 50V 5x11 T 10uF M 50V 5x11 T 10uPF M 50V 5x11 T

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Ref. No.	Part No.	Description		_
C832	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	Ţ
C833	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	Ţ
C834	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	Ţ
C835	CEET-J100M-CIC	CAPACITOR E/ALUMINUM	10uF M 50V 5x11	Ţ
C836	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11	T
C837 C838	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	_
C839	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C840	CCTT-J101J-0CZ CEET-J100M-CI0	CAPACITOR CERAMIC CAPACITOR E/ALUMINUM	100PF J 50V SL T 10uF M 50V 5x11	"AVR18 ONLY"
C841	CEET-F470M-CIO	CAPACITOR E/ALUMINUM		T T
C842	CCAT-J101K-AAB	CAPACITOR CERAMIC	47uF M 25V 5x11 100PF K 50V B T	ı
C843	CEET-J4R7M-CIO	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C844	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T	"AVR18 ONLY"
C845	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11	T
C846	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	1
C847	CEET-J4R7M-CIG	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C848	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T	"AVR18 ONLY"
C849	CEET-J100M-CIC	CAPACITOR E/ALUMINUM	10uF M 50V 5x11	T
C850	CEET-F470M-CIG	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	Ť
C851	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C852	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C853	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T	"AVR18 ONLY"
C854	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11	T
C855	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C856	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C857	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T	"AVR18 ONLY"
C858	CEET-J100M-CIC	CAPACITOR E/ALUMINUM	10uF M 50V 5x11	T
C859	CEET-F470M-CIC	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	T
C860	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	_
C861	CEET-J4R7M-CIC	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C862 C863	CCTT-J101J-0CZ CEET-J100M-CIC	CAPACITOR CERAMIC	100PF J 50V SL T	"AVR18 ONLY"
C864	CEET-F470M-CIG	CAPACITOR E/ALLMINUM	10uF M 50V 5x11	Ţ
C865	CEET-F470M-CIG	CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM	47uF M 25V 5x11 47uF M 25V 5x11	T T
C866	CCAT-F103Z-AAF	CAPACITOR CERAMIC	47uF M 25V 5x11 0.01uF Z 25V F T	
C867	CEET-F470M-CIC	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	Т
C868	CEET-F470M-CIC	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	†
C869	CEET-F470M-CIC	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	Ť
C888	CEET-J4R7M-CIC	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	Ť
C889	CEET-J4R7M-CIC	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	Ť
C890	CEET-J1ROM-CIC	CAPACITOR E/ALUMINUM	1.0uF M 50V 5x11	T
C891	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T	
C893	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C894	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C895	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C896	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C897	CCAT-J470J-AAZ	CAPACITOR CERAMIC	47PF J 50V SL T	
C898	CCAT-J470J-AAZ	CAPACITOR CERAMIC	47PF J 50V SL T	
C899 C900	CCAT-J470J-AAZ	CAPACITOR CERAMIC	47PF J 50V SL T	
C901	CCAT-J470J-AAZ CCAT-J101K-AAB	CAPACITOR CERAMIC	47PF J 50V SL T	
C902	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C903	CCAT-J101K-AAB	CAPACITOR CERAMIC CAPACITOR CERAMIC	100PF K 50V B T	
C904	CCAT-J101K-AAB	CAP#SITOR CERAMIC	100PF K 50V B T 100PF K 50V B T	
C905	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T	
C906	CCAT-J101K-AAS	CAP+CITOR CERAMIC	100PF K 50V B T	
C911	CCCT-J104Z-0FF	CAP-CITOR CERAMIC	0.1uF Z 50V F T	
C913	CCAT-J101K-AAB	CAPACITOR CERAMIC	1002F K 50V B T	
C914	CCAT-J101K-AAB	CAP+CITOR CERAMIC	100°F K 50V B T	
C915	CCAT-J101K-AAB	CAP+CITOR CERAMIC	100PF K 50V B T	
C916	CCAT-J101K-AAB	CAP+CITOR CERAMIC	100PF K 50V B T	
C917	CCAT-F103Z-AAF	CAPACITOR CERAMIC	0.01uF Z 25V F T	
C918	CCAT-F103Z-AAF	CAPACITOR CERAMIC	0.01uF Z 25V F T	
C919	CCAT-F103Z-AAF	CAP+CITOR CERAMIC	0.01uF Z 25V F T	
C920	CCAT-F103Z-AAF	CAPACITOR CERAMIC	0.01uF Z 25V F T	
C921	CCAT-F103Z-AAF	CAP+CITOR CERAMIC	0.01uF Z 25V F T	
C922	CCAT-F103Z-AAF	CAP+CITOR CERAMIC	0.01uF Z 25V F T	
C924	CEET-J4R7M-CIC	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C925	CEET-J4R7M-CIC	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11	T
C926	CEET-F470M-CIC	CAPACITOR E/ALUMINUM	47uF M 25V 5x11	Ţ
C927 C928	CEET-F470M-CIC CCTT-J101J-0CZ	CAPACITOR CARAMIC	47uF M 25V 5x11	T "AVD40 ON!! V"
C929	CCTT-J101J-0CZ	CAPICITOR CERAMIC	1002F J 50V SL T	"AVR18 ONLY"
C930	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T	"AVR18 ONLY"
C931	CCTT-J1013-0CZ	CAPACITOR CERAMIC CAPACITOR CERAMIC	1002F J 50V SLT 1002F J 50V SLT	"AVR18 ONLY"
C932	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SLT	"AVR18 ONLY" "AVR18 ONLY"
		O. II OTTOTT OLTTA MINO	, CC. 1 0 00 V GL 1	AVITTO UNLT

Ref. No.	Part No.	Description	100PF J 50V SLT "AVR18 ONLY"
C933	CCTT-J101J-0CZ	CAPACITOR CERAMIC	
D801	DDTS-00070-SO0	DIODES DIODE-SI	1SS133 (40V 0.11A) DO-40 T
IC801	ICOP-00134-SG0	INTEGRATED CIRCUITS IC DUAL OP AMP IC DUAL OP AMP IC DUAL OP AMP IC ANALOG FUNCTION IC VOLUME CONTROL IC IC VOLUME CONTROL IC IC VOLUME CONTROL IC IC DUAL OP AMP IC DUAL OP AMP IC DUAL OP AMP IC DUAL OP AMP	NJM4558M SOP8
IC802	ICOP-00134-SG0		NJM4558M SOP8
IC803	ICOP-00134-SG0		NJM4558M SOP8
IC804	ICLN-03590-S10		LC78213 DIP30
IC805	ICCM-01300-SD0		KIC9459F SOP24
IC806	ICCM-01300-SD0		KIC9459F SOP24
IC807	ICCM-01300-SD0		KIC9459F SOP24
IC808	ICOP-00134-SG0		NJM4558M SOP8
IC809	ICOP-00134-SG0		NJM4558M SOP8
IC810	ICOP-00134-SG0		NJM4558M SOP8
IC811	ICOP-00134-SG0		NJM4558M SOP8
CW803	KNCW-00240-8T9	CONNECTORS CONNECTOR-WAFER CONNECTOR-WAFER CONNECTOR-WAFER WIRE-ASS'Y WIRE-ASS'Y	53014-08 2.0mm WHT
CN801	KNCW-01510-DS9		35237-1310 2M/M 13P
CN802	KNCW-01510-8S9		35237-0810 2M/M 8P
CW801	UA08-8O810-250		1533#28 GRY-100 10P
CW805	U308-8S818-250		2547#28 GRY-180 3P
PCB	PCSR-04830-11B	MISCELLANEOUS PCB-PREOUT SOCKET-RCA SOCKET-RCA	A1R-483
JK801	SKRC-00750-060		JK060046BN
JK802	SKRC-00750-060		JK060046BN
R801 R802 R803 R804 R805 R806 R807 R808 R809 R810 R811 R812 R813 R814 R815 R816 R817 R818 R819 R820 R821 R822 R823 R824 R825 R826 R827 R827 R828 R829 R830 R831 R831 R832 R833 R834 R835 R836 R837 R836 R837 R836 R837 R836 R837 R838 R838 R838 R838 R838 R838 R838	RCFT-E104J-000 RCFT-E102J-000 RCFT-E102J-000 RCFT-E102J-000 RCFT-E104J-000 RCFT-E104J-000 RCFT-E470J-000 RCFT-E470J-000 RCFT-E470J-000 RCFT-E104J-000 RCFT-E470J-000 RCFT-E470J-000 RCFT-E104J-000	RESISTORS RESISTOR—CARBON FILM	100Kohm 1/5W J T 100Kohm 1/5W J T 1Kohm 1/5W J T 100Kohm 1/5W J T 100Kohm 1/5W J T 100Kohm 1/5W J T 100Kohm 1/5W J T 47ohm 1/5W J T 47ohm 1/5W J T 47ohm 1/5W J T 100Kohm 1/5W J T

Ref. No.	Part No.	Description	·
R841	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R842	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R843	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R844	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R845	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R846	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R847	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R848	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R849	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R850	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R851	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R852	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R853	RCFT-E104J-000	RESISTOR~CARBON FILM	100Kohm 1/5W J T
R854	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R855	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R856	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R857	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R858	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R859	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R860	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R861	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R862	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W J T
R863	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R864	RCFT-E102J-000	RESISTOR—CARBON FILM	1Kohm 1/5W J T
R865	RCFT-E102J-000	RESISTOR—CARBON FILM	1Kohm 1/5W J T
R866 R867	RCFT-E471J-000	RESISTOR - CARBON FILM	470ohm 1/5W J T
R868	RCFT-E222J-000	RESISTOR—CARBON FILM	.2.2Kohm 1/5W J T
R869	RCFT-E222J-000 RCFT-E153J-000	RESISTOR - CARBON FILM	2.2Kohm 1/5W J T
R870	RCFT-E222J-000	RESISTOR - CARBON FILM	15Kohm 1/5W J T
R871	RCFT-E222J-000	RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R872	RCFT-E153J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R873	RCFT-E222J-000	RESISTOR—CARBON FILM	15Kohm 1/5W J T 2.2Kohm 1/5W J T
R874	RCFT-E222J-000	RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R875	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R876	RCFT-E221J-000	RESISTOR-CARBON FILM	220ohm 1/5W J T
R877	RCFT-E221J-000	RESISTOR-CARBON FILM	2200hm 1/5W J T
R878	RCFT-E221J-000	RESISTOR-CARBON FILM	2200hm 1/5W J T
R879	RCFT-E221J-000	RESISTOR-CARBON FILM	220ohm 1/5W J T
R880	RCFT-E221J-000	RESISTOR-CARBON FILM	220ohm 1/5W J T
R881	RCFT-E221J-000	RESISTOR-CARBON FILM	220ohm 1/5W J T
R882	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R883	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R884	RCFT-E302J-000	RESISTOR-CARBON FILM	3Kohm 1/5W J T
R885	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R886	RCFT-E302J-000	RESISTOR-CARBON FILM	3Kohm 1/5W J T
R887	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R888	RCFT-E302J-000	RESISTOR-CARBON FILM	3Kohm 1/5W J T
R889	RCFT-E153J-000	RESISTOR-CARBON FILM	15Kohm 1/5W J T
R890	RCFT-E302J-000	RESISTOR-CARBON FILM	3Kohm 1/5W J T
R891	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R892	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R893	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R894	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R895 R896	RCFT-E102J-000 RCFT-E102J-000	RESISTOR—CARBON FILM	1Kohm 1/5W J T
R897	RCFT-E102J-000 RCFT-E152J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	1Kohm 1/5W J T
R898	RCFT-E152J-000	RESISTOR—CARBON FILM	1.5Kohm 1/5W J T
R899	RCFT-E152J-000	RESISTOR-CARBON FILM	1.5Kohm 1/5W J T 1.5Kohm 1/5W J T
R900	RCFT-E152J-000	RESISTOR CARBON FILM	1.5Kohm 1/5W J T
R901	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R902	RCFT-E102J-000	RESISTOR—CARBON FILM	1Kohm 1/5W J T
R903	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R904	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R905	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R906	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R907	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R908	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R909	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R910	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R911	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R912	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R913	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R914	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R915	RCFT-E470J-000	RESISTOR-CARBON FILM	47ohm 1/5W J T
R918	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T

Ref. No.	Part No.	Description	
Q801 Q802 Q803 Q804 Q805 Q806 Q807 Q808 Q809 Q810 Q811 Q812 Q813 Q814	TRTD-00200-SD0 TRTD-00200-SD0 TRTA-00940-SD0 TRTD-00200-SD0 TRTD-00200-SD0 TRTD-00200-SD0 TRTD-00200-SD0 TRTD-00200-SD0 TRTA-00940-SD0 TRTA-00940-SD0 TRTA-00940-SD0 TRTC-01700-SD0 TRTC-01700-SD0 TRTC-01700-SD0 TRTC-01700-SD0	TRANSISTORS TRANSISTOR N-L FREQ TRANSISTOR P-H FREQ TRANSISTOR N-L FREQ TRANSISTOR N-L FREQ TRANSISTOR N-L FREQ TRANSISTOR N-H FREQ TRANSISTOR P-H FREQ TRANSISTOR N-H FREQ	KTD-1302 TO92 KTD-1302 TO92 KRA107M W/RESIST TO92M KTD-1302 TO92 KTA107M W/RESIST TO92M KTD-1302 TO92 KTD-1302 TO92 KTD-1302 TO92 KTD-1302 TO92 KRA107M W/RESIST TO92M KRA107M W/RESIST TO92M KRC107M W/RESIST TO92M
	4. FRONT P.C.BOARD		
D701 D702 D703 D704 D705 D706 D707 D708 D709 D710 D711 D712 D714 D715 D716 LD705	DDTS-00070-SO0 DPLE-00201-RR0 DPLE-00201-RR0	DIODES DIODE-SI DISPLAY-LED	1SS133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T
R701 R702 R703 R704 R705 R706 R712 R713 R716 R717 R719 R720 R721 R722 R723 R725 R726 R727 R728 R729 R730 R731 R732 R733 R735 R737 R739 R740 R740 R747 R748 R751 R752	RCFT-E472J-000 RCFT-E472J-000 RCFT-E472J-000 RCFT-E472J-000 RCFT-E23J-000 RCFT-E223J-000 RCFT-E271J-000 RCFT-E271J-000 RCFT-E271J-000 RCFT-E271J-000 RCFT-E271J-000 RCFT-E271J-010 RCFT-F272J-010	RESISTORS RESISTOR — CARBON FILM	4.7Kohm 1/5W J T 22Kohm 1/5W J T 100Kohm 1/5W J T 270ohm 1/5W J T 2.7Kohm 1/4W J T 2.7Kohm 1/5W J T 47Kohm 1/5W J T 42Kohm 1/5W J T 42Kohm 1/5W J T 42Kohm 1/5W J T 22Kohm 1/4W J T

Ref. No. R753 R754 R755 R756	Part No. RCFT-F223J-010 RCFT-E473J-000 RCFT-E103J-000 RCFT-E103J-000	Description RESISTOR—CARBON FILM RESISTOR—CARBON FILM RESISTOR—CARBON FILM RESISTOR—CARBON FILM	22Kohm 1/4W J T 47Kohm 1/5W J T "AVR 5 ONLY" 10Kohm 1/5W J T 10Kohm 1/5W J T "AVR 18 ONLY"
IC701 IC702 IC703 IC704	ICMP-03100-S20 ICOP-00210-SD0 ICHY-00221-U60 ICCM-00231-SR0	INTEGRATED CIRCUITS IC MICOM IC RESET IC REMOTE RECEIVER IC 2K CMOS EEPROM	UPD780204GF-049-3BA QFP100 KIA7042P/F 4.2V TO-92 TSOP1238TB1 M24C02-BN6 DIP8
X701 FL701 PCB SW703 SW705 SW706 SW707 SW708 SW709 SW711 SW712 SW713 SW714 SW715 SW716 SW717 SW718 SW716 SW717 SW718 SW719 SW720 SW721 SW722 SW720 SW721 SW723 SW724 SW725 SW727 SW728 SW727 SW729 SW730 SW731 SW732	KTRE - 00170 - 042 MRAG - 13020 - 004 DPFL - 00630 - 00P PCSR - 04810 - 11B SWTA - 00220 - 060	MISCELLANEOUS RESONATOR CUSHION—A DISPLAY—FLUORESCENT PCB—FRONT SWITCH—TACT	CST4.19MGW 4.19MHz EVA(VE-45),10X25X6T CM1530C A1R-481A SKHV10910(A) 12V 50mA
Q704 Q705 Q706 Q707 Q708 Q710	TRTC-01700-SD0 TRTC-01700-SD0 TRTC-01700-SD0 TRTC-01700-SD0 TRTC-01700-SD0 TRTC-016G-SD0	TRANSISTORS TRANSISTOR N - H FREQ	KRC107M W/RESIST TO92M KTC3198-GR TO92
CW701 CW702 CW704 CN701 CN702	U810-7M744-200 U308-8S810-250 U508-4M710-250 KNCW-06380-35S KNCW-00160-5S9	CONNECTORS WIRE-ASS'Y WIRE-ASS'Y WIRE-ASS'Y CONNECTOR-WAFER CONNECTOR-WAFER	UL1007#26 VIT-440 8P 2547#28 GRY-100 10P 1007#26 YEL-100 5P GF120-35S-TS 1.25mm S 53015-0510 2mm-WHT
C703 C704 C705 C706 C707 C708 C709	CCCT-J103Z-0DF CCAT-J104Z-AAF CEET-J100M-CI0 CEGS-B104Z-BK0 CEET-D101M-CI0 CEET-F470M-CI0 CCAT-J104Z-AAF CCTT-J101J-0CZ	CAPACITORS CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR E/ALUMINUM CAPACITOR E/DO LAYER CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM CAPACITOR CERAMIC CAPACITOR CERAMIC	0.01uF Z 50V F T 0.1uF Z 50V F T 10uF M 50V 5x11 T 0.1F Z 5.5V EECS5R5V104 100uF M 10V 5x11 T 47uF M 25V 5x11 T 0.1uF Z 50V F T 100PF J 50V SL T

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Ref. No.	Part No.	Description	
C711	CCAT-J473Z-AAF	CAPACITOR CERAMIC	0.047uF Z 50V F T
C712	CCAT-J473Z-AAF	CAPACITOR CERAMIC	0.047uF Z 50V F T
C713	CEET-J470M-DI0	CAPACITOR E/ALUMINUM	47uF M 50V 6.3x11 T
C714	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T
C715	CEET-J1R0M-CI0	CAPACITOR E/ALUMINUM	1.0uF M 50V 5x11 T
C716	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T
C752	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T
C760	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T
C761	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T
C762	CCAT-F223Z-AAF	CAPACITOR CERAMIC	0.022uF Z 25V F T

CAPACITORS

4-1. TUNER P.C.BOARD

0601	OFFT F470M OIO	CAPACITORS	43 5 14 651 5 11
C601	CEET-F470M-CI0	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C602	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C604	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C605	CEET-F470M-CIO		
		CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C606	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C607	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C608	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C609	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C611	CCCT-J473Z-0JF	CAPACITOR CERAMIC	0.047uF Z 50V F T
C613	CCTT-J150J-0BC	CAPACITOR CERAMIC	15PF J 50V CHT
C614	CFST-O471J-CJ0	CAPACITOR F/STYROL	470PF J 125V 5.5x12 T
C615	CEET-G100M-CI0	CAPACITOR E/ALUMINUM	10uF M 35V 5x11 T
C616			
	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C617	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C618	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C619	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C620	CCCT-J223Z-0FF	CAPACITOR CERAMIC	
			0.022uF Z 50V F T
C621	CFMT-N223J-EK0	CAPACITOR F/POLYESTR	0.022uF J 100V 7.4x13 T
C622	CEET-J3R3M-CI0	CAPACITOR E/ALUMINUM	3.3uF M 50V 5x11 T
C623	CFMT-N332J-DJ0	CAPACITOR F/POLYESTR	0.0033uF J 100V 5.8x12 T
C624	CFMT-N393J-FK0	CAPACITOR F/POLYESTR	
			0.039uF J 100V 8.5x13. T
C625	CCCT-J103Z-0DF	CAPACITOR CERAMIC	0.01uF Z 50V F T
C626	CEET-J1R0M-CI0	CAPACITOR E/ALUMINUM	1.0uF M 50V 5x11 T
C627	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C628	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C629	CEET-F470M-CIO		
		CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C630	CCCT-J473Z-0JF	CAPACITOR CERAMIC	0.047uF Z 50V F T
C631	CCTT~J331J-0FZ	CAPACITOR CERAMIC	330PF J 50V SL T
C632	CCTT-J101J-0CZ	CAPACITOR CERAMIC	100PF J 50V SL T "AVR 18 ONLY"
C633	CCTT-J820J-0BZ	CAPACITOR CERAMIC	
			82PF J 50V SLT "AVR 18 ONLY"
C634	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C635	CCCT-J103Z-0DF	CAPACITOR CERAMIC	0.01uF Z 50V F T
C636	CCCT-J223Z-0FF	CAPACITOR CERAMIC	0.022uF Z 50V F T
C637	CCTT-J390J-ODC	CAPACITOR CERAMIC	
C638			
	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C639	CCTT-J390J-0DC	CAPACITOR CERAMIC	39PF J 50V CH T
C640	CEET-JR47M-CI0	CAPACITOR E/ALUMINUM	0.47uF M 50V 5x11 T
C642	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C643	CCCT-J223Z-0FF		
		CAPACITOR CERAMIC	0.022uF Z 50V F T
C644	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C645	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C646	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C647	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C649			
	CEET-G100M-CI0	CAPACITOR E/ALUMINUM	10uF M 35V 5x11 T
C650	CEET-G100M-CI0	CAPACITOR E/ALUMINUM	10uF M 35V 5x11 T
C651	CEET-G100M-CI0	CAPACITOR E/ALUMINUM	10uF M 35V 5x11 T
C652	CCAT-J680J-AAZ	CAPACITOR CERAMIC	
C652			
	CCAT-J100J-AAZ	CAPACITOR CERAMIC	10PF J 50V SL T "AVR 18 ONLY"
C653	CCAT-J680J-AAZ	CAPACITOR CERAMIC	68PF J 50V SL T "AVR 5 ONLY"
C653	CCAT-J100J-AAZ	CAPACITOR CERAMIC	10PF J 50V SL T "AVR 18 ONLY"
C654	CCAT-J561K-AAB	CAPACITOR CERAMIC	
C654			
	CCAT-J221K-AAB	CAPACITOR CERAMIC	220PF K 50V B T "AVR 18 ONLY"
C655	CCAT-J561K-AAB	CAPACITOR CERAMIC	560PF K 50V B T "AVR 5 ONLY"
C655	CCAT-J221K-AAB	CAPACITOR CERAMIC	220PF K 50V B T "AVR 18 ONLY"
C656	CEET-G100M-CI0	CAPACITOR E/ALUMINUM	10uF M 35V 5x11 T
C657	CCTT-J681J-0BZ		
		CAPACITOR CERAMIC	680PF J 50V SL T
C658	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM	4.7uF M 50V 5x11 T
C659	CEET-G100M-CI0	CAPACITOR E/ALUMINUM	10uF M 35V 5x11 T
C660	CCAT-J473Z-AAF	CAPACITOR CERAMIC	0.047uF Z 50V F T
C661	CEET-E101M-DI0	CAPACITOR E/ALUMINUM	
C662			
G002	CEET-J1R0M-CI0	CAPACITOR E/ALUMINUM	1.0uF M 50V 5x11 T

Ref. No.	Part No.	Description	
C664 C665 C675 C676	CEET-J1ROM-CIO CCCT-J223Z-OFF CCAT-J104Z-AAF CCAT-J104Z-AAF	CAPACITOR E/ALUMINUM CAPACITOR CERAMIC CAPACITOR CERAMIC CAPACITOR CERAMIC	0.22uF M 50V 5x11 T 1.0uF M 50V 5x11 T 0.022uF Z 50V F T 0.1uF Z 50V F T 0.1uF Z 50V F T
C677	CCAT-J104Z-AAF	CAPACITOR CERAMIC	0.1uF Z 50V F T
VD601 VD602 D602 ZD601	DDSV-00120-S10 DDSV-00120-S10 DDTS-00070-S00 DDTZ-G051B-SOS	DIODES DIODE-VVC DIODE-VVC DIODE-SI DIODE ZENER	SVC321SPA-C2 AM8V DO40S SVC321SPA-C2 AM8V DO40S 1SS133 (40V 0.11A) DO-40 T MTZJ5.1B 4.94-5.20 DO34 T
IC601 IC602 IC603 IC604	ICLN-03620-S10 ICLN-03680-S10 ICLN-03610-S10 ICLN-03630-SR0	INTEGRATED CIRCUITS IC AM/FM IF IC PLL IC PLL FM MPX IC RDS DEMODULATOR	LA1266 DIP24 LC7218JM SOP-24 LA3401 DIP22 TDA7479D SOP16 "AVR 18 ONLY"
T601 T602 T603 T604 T605 T606 T607 L602	KIAT-00530-E20 KIAO-00460-E20 KIAA-00260-E20 IFFA-00110-E20 IFFD-00100-E20 KIML-A0010-E20 KIML-A0010-E20 KIFK-00080-E20	COILS COIL—AM ANT COIL—AM OSC COIL—AM IFT IFT—FM IFT—FM DET COIL—FM MPX FILTER COIL—FM CHOKE	AAT053 MW 7mm — CAN AAO046 MW 7mm — CAN AAA—026 7MC—K502713N4—KR AFA011 7mm—CAN AFD010 7mm—CAN AMA001 19KHz 10mm—CAN AMA001 19KHz 10mm—CAN AFK016 A187LY—K5006 20.8mH "AVR 18 ONLY"
X601 CF605 PCB1 CF601 CF602 CF602 CF603 CF604 ANT601 ANT601 FE601	KTAL - 00041 - 072 KTRE - 00300 - 288 PCSR - 04810 - 11B BTBP - 00140 - BPM BTCE - 00040 - 107 BTCE - 00152 - 107 BTCE - 00450 - 045 TEAT - 00170 - 02S TEAT - 00160 - 02S TUFF - 00231 - 00K TUFF - 00201 - 01K	MISCELLANEOUS CRYSTAL RESONATOR PCB-TUNER FILTER-MICA PRINT FILTER-CERAMIC FILTER-CERAMIC FILTER-CERAMIC FILTER-CERAMIC TERMINAL ANTENNA TERMINAL ANTENNA FRONT-END	HC-49/U 7.200000MHz ZTB456F11 A1R-481B GFMB-T "AVR 18 ONLY" SFE10.7MS2-A-TF21 "AVR 5 ONLY" SFE10.7MJA10H-A-TF21 "AVR 18 ONLY SFE10.7MS2-A-TF21 AHCFM2-450AL SC0210393N "AVR 5 ONLY" SC0210392N "AVR 18 ONLY" FTA3-509H "AVR 5 ONLY" FTA4-460H "AVR 18 ONLY"
R273 R601 R602 R603 R604 R605 R606 R607 R608 R609 R610 R611 R612 R613 R614 R618 R622 R624 R624 R625 R624	RCFT-E332J-000 RCFT-E102J-000 RCFT-E243J-000 RCFT-E104J-000 RCFT-E101J-000 RCFT-E101J-000 RCFT-E332J-000 RCFT-E561J-000 RCFT-E331J-000 RCFT-E331J-000 RCFT-E271J-000 RCFT-E271J-000 RCFT-E221J-000 RCFT-E221J-000 RCFT-E104J-000 RCFT-E104J-000 RCFT-E104J-000 RCFT-E473J-000	RESISTORS RESISTOR - CARBON FILM	3.3Kohm 1/5W J T 1Kohm 1/5W J T 24Kohm 1/5W J T 100Kohm 1/5W J T 1.2Kohm 1/5W J T 1.2Kohm 1/5W J T 1.2Kohm 1/5W J T 3.3Kohm 1/5W J T 3.3Kohm 1/5W J T 330ohm 1/5W J T 330ohm 1/5W J T 4.7ohm 1/5W J T 220ohm 1/5W J T 220ohm 1/5W J T 100Kohm 1/5W J T 100Kohm 1/5W J T 100Kohm 1/5W J T 4.7Kohm 1/5W J T
	C663 C664 C665 C675 C676 C677 VD601 VD602 D602 ZD601 IC601 IC602 IC603 IC604 T601 T602 T603 T606 T607 L602 X601 CF605 PCB1 CF601 CF602 CF602 CF602 CF602 CF602 CF602 CF602 R603 R604 ANT601 ANT601 FE601	C663 CEFT−JR2M−CI0 C664 CEFT−JR3M−CI0 C665 CCCT−J223Z−0FF C675 CCAT−J104Z−AAF C676 CCAT−J104Z−AAF C677 CCAT−J104Z−AAF C677 CCAT−J104Z−AAF VD601 DDSV−00120−S10 VD602 DDSV−00120−S10 D602 DDTS−00070−S00 ZD601 DDTZ−G051B−SOS IC602 DDTS−00070−S00 ZD601 DDTZ−G051B−SOS IC602 ICLN−03680−S10 IC603 ICLN−03680−S10 IC604 ICLN−03680−S10 IC603 ICLN−03680−S10 IC604 ICLN−03630−SR0 T605 IKAD IC603 ICLN−0360−S20 T604 IKIAD KIAD 00460−E20 T605 IFFD−00110−E20 T606 KIML−A0010−E20 T607 KIML−A0010−E20 T608 KIFK−00080−E20 X601 KTAE−00410−C2 CF605 KTRE−00300−288	6683 CEET—JR2PM—CIO CAPACITOR E/ALUMINUM 6684 CEET—JR10M—CIO CAPACITOR E/ALUMINUM 6685 CCCT—J223Z—OFF CAPACITOR CERAMIC 6676 CCAT—J104Z—AAF CAPACITOR CERAMIC 6676 CCAT—J104Z—AAF CAPACITOR CERAMIC 6677 CCAT—J104Z—AAF CAPACITOR CERAMIC VD601 DDSV—00120—S10 DIODES VD602 DDSV—00120—S10 DIODE –VVC D602 DDSV—00120—S10 DIODE –VVC D602 DDTS—G0070—S00 DIODE –SI ZD601 DDTZ—G051B—SOS DIODE ZENER IC601 ICLN—03680—S10 IC AM/FM IF IC603 ICLN—03680—S10 IC PLL IC604 ICLN—03680—S10 IC PLL FM MPX IC605 ICLN—03680—S10 IC PLL FM MPX IC604 ICLN—03680—S10 IC PLL FM MPX IC605 ICLN—03680—S10 IC PLL FM MPX IC6064 ICLN—03680—S10 IC PLL FM MPX IC607 KIAC—00460—E20 COIL—AM MAIT T607 KIAC—00460—

Ref. No.	Part No.	Description	•
R628	RCFT-E472J-000	RESISTOR-CARBON FILM	4.7Kohm 1/5W J T
R629	RCFT-E472J-000	RESISTOR CARBON FILM	4.7Kohiii 1/5W J T
R630	RCFT-E103J-000	RESISTOR-CARBON FILM	10Kohm 1/5W J T
R631	RCFT-E222J-000	RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R633	RCFT-E101J-000	RESISTOR-CARBON FILM	100ohm 1/5W J T
R634	RCFT-E472J-000	RESISTOR-CARBON FILM	4.7Kohm 1/5W J T
R636	RCFT-E220J-000	RESISTOR-CARBON FILM	220hm 1/5W J T
R637	RCFT-E621J-000	RESISTOR - CARBON FILM	620ohm 1/5W J T "AVR 5 ONLY"
R637	RCFT-E390J-000	RESISTOR - CARBON FILM	390ohm 1/5W J T "AVR 18 ONLY"
R638	RCFT-E103J-000	RESISTOR - CARBON FILM	10Kohm 1/5W J T
R640	RCFT-E101J-000	RESISTOR-CARBON FILM	100ohm 1/5W J T
R641	RCFT-E473J-000	RESISTOR - CARBON FILM	47Kohm 1/5W J T
R642	RCFT-E332J-000	RESISTOR - CARBON FILM	3.3Kohm 1/5W J T
R643	RCFT-E103J-000	RESISTOR - CARBON FILM	10Kohm 1/5W J T
R645	RCFT-E103J-000	RESISTOR - CARBON FILM	10Kohm 1/5W J T
R646	RCFT-E471J-000	RESISTOR - CARBON FILM	470ohm 1/5W J T
R647	RCFT-E103J-000	RESISTOR - CARBON FILM	10Kohm 1/5W J T
R648	RCFT-E101J-000	RESISTOR-CARBON FILM	100ohm 1/5W J T
R649	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R650	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R651	RCFT-E102J-000	RESISTOR - CARBON FILM	1Kohm 1/5W J T
R659	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R660	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R661	RCFT-E152J-000	RESISTOR - CARBON FILM	1.5Kohm 1/5W J T
R662	RCFT-E152J-000	RESISTOR-CARBON FILM	1.5Kohm 1/5W J T
R663	RCFT-E272J-000	RESISTOR-CARBON FILM	2.7Kohm 1/5W J T
R664	RCFT-E272J-000	RESISTOR-CARBON FILM	2.7Kohm 1/5W J T
R665	RCFT-E622J-000	RESISTOR-CARBON FILM	6.2Kohm 1/5W J T
R666	RCFT-E622J-000	RESISTOR-CARBON FILM	6.2Kohm 1/5W J T
R667	RCFT-E184J-000	RESISTOR-CARBON FILM	180Kohm 1/5W J T "AVR 5 ONLY"
R667	RCFT-E274J-000	RESISTOR-CARBON FILM	270Kohm 1/5W J T "AVR 18 ONLY"
R668	RCFT-E184J-000	RESISTOR-CARBON FILM	180Kohm 1/5W J T "AVR 5 ONLY"
R668	RCFT-E274J-000	RESISTOR-CARBON FILM	270Kohm 1/5W J T "AVR 18 ONLY"
R669	RCFT-E124J-000	RESISTOR-CARBON FILM	120Kohm 1/5W J T "AVR 5 ONLY"
R669	RCFT-E224J-000	RESISTOR-CARBON FILM	220Kohm 1/5W J T "AVR 18 ONLY"
R670	RCFT-E124J-000	RESISTOR-CARBON FILM	120Kohm 1/5W J T "AVR 5 ONLY"
R670	RCFT-E224J-000	RESISTOR-CARBON FILM	220Kohm 1/5W J T "AVR 18 ONLY"
R671	RCFT-E473J-000	RESISTOR-CARBON FILM	47Kohm 1/5W J T
R672	RCFT-E101J-000	RESISTOR-CARBON FILM	100ohm 1/5W J T
R674	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R675	RCFT-E473J-000	RESISTOR-CARBON FILM	47Kohm 1/5W J T
R676	RCFT-E223J-000	RESISTOR-CARBON FILM	22Kohm 1/5W J T
R683	RCFT-E182J-000	RESISTOR-CARBON FILM	1.8Kohm 1/5W J T
R684	RCFT-E102J-000	RESISTOR-CARBON FILM	1Kohm 1/5W J T
R685	RCFT-E151J-000	RESISTOR-CARBON FILM	150ohm 1/5W J T "AVR 18 ONLY"
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		TRANSISTORS	
Q601	TRTC-0010Y-SD0	TRANSISTOR N-H FREQ	KTC3194-Y TO92
Q603	TRTC-0016G-SD0	TRANSISTOR N-H FREQ	KTC3198-GR TO92
Q605	TRTA-00940-SD0	TRANSISTOR P-H FREQ	KRA107M W/RESIST TO92M
Q606	TRTA-00940-SD0	TRANSISTOR P-H FREQ	KRA107M W/RESIST TO92M
Q607	TRTA-00940-SD0	TRANSISTOR P-H FREQ	KRA107M W/RESIST TO92M
Q608	TRTA-00940-SD0	TRANSISTOR P-H FREQ	KRA107M W/RESIST TO92M
Q609	TRTD-00200-SD0	TRANSISTOR N-L FREQ	KTD-1302 TO92
Q610	TRTD-00200-SD0	TRANSISTOR N-L FREQ	KTD-1302 TO92
Q611	TRTC-0016G-SD0	TRANSISTOR N-H FREQ	KTC3198-GR TO92
Q612	TRTC-0016G-SD0	TRANSISTOR N-H FREQ	KTC3198-GR TO92
		CONNECTORS	
TP601	KNCW-01490-2T9	CONNECTORS CONNECTOR-WAFER	JE115-AT-02P
TP602	KNCW-01490-2T9	CONNECTOR—WAFER CONNECTOR—WAFER	JE115-AT-02P
TP603	KNCW-01490-2T9	CONNECTOR—WAFER	JE115-AT-02P
CH602	KNCW-01510-ES9	CONNECTOR—WAFER CONNECTOR—WAFER	35237-1410 2M/M 14P
J11002	MIOW DIDIO-EGS	CONNECTOR - WAFER	33237 - 1410 ZWI/WI 14P
VDC04	VEED 4004D 170	CONTROLS	B. (12.12.2
VR601	VFEB-A021B-472	RESISTOR-SEMI FIXED	RH0638C-4.7KB 4.7Kohm
VR602 VR603	VFEB-A021B-473 VFEB-A021B-224	RESISTOR-SEMI FIXED	RH0638C-47KB 47Kohm
CT601		RESISTOR-SEMI FIXED TRIMMER	RH0638C-220KB 220Kohm CVCN06C200
	VCTC-00022-200		

	4-2. TONE P.C.BOARD		
VR701	VRAE-P050C-104	CONTROLS VR-ROTARY	RK14K1260106-100KΩ(C)x2
Ref. No. VR702	Part No. VRAE-P050C-104	Description VR-ROTARY	RK14K1260106−100KΩ(C)x2
VR703	VRAE-P049W-104	VR-ROTARY	RK11K1160106-100KΩ(W)
CW705	LIMOS 20250 000	CONNECTORS	0547 #00:0 4007 #00 400 050
CW705 CH702	UM08-80850-000 U1T1-01520-Z10	WIRE-ASS'Y WIRE-ASS'Y	2547#28x2,1007#26 400 GRY 1007#22 BLK-200 3.2pi
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D704	BOTT 5400 L 000	RESISTORS	
R761 R762	RCFT-E100J-000 RCFT-E101J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	10ohm 1/5W J T 100ohm 1/5W J T
R763	RCFT-E101J-000	RESISTOR-CARBON FILM	100ohm 1/5W J T
R764 R765	RCFT-E333J-000 RCFT-E561J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	33Kohm 1/5W J T 560ohm 1/5W J T
R766	RCFT-E104J-000	RESISTOR-CARBON FILM	100Kohm 1/5W J T
R767	RCFT-E105J-000	RESISTOR-CARBON FILM	1Mohm 1/5W J T
R769 R770	RCFT-E103J-000 RCFT-E223J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	10Kohm 1/5W J T 22Kohm 1/5W J T
R771	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W J T
R772 R773	RCFT-E471J-000 RCFT-E104J-000	RESISTOR—CARBON FILM	470ohm 1/5W J T
R774	RCFT-E104J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	100Kohm 1/5W J T 100Kohm 1/5W J T
R775	RCFT-E105J-000	RESISTOR-CARBON FILM	1Mohm 1/5W J T
R776 R777	RCFT-E105J-000 RCFT-E471J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	1Mohm 1/5W J T 470ohm 1/5W J T
R778	RCFT-E471J-000	RESISTOR-CARBON FILM	470ohm 1/5W J T
R779 R780	RCFT-E104J-000 RCFT-E104J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	100Kohm 1/5W J T
R781	RCFT-E222J-000	RESISTOR—CARBON FILM	100Kohm 1/5W J T 2.2Kohm 1/5W J T
R782	RCFT-E222J-000	RESISTOR-CARBON FILM	2.2Kohm 1/5W J T
R783 R784	RCFT-E223J-000 RCFT-E223J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	22Kohm 1/5W J T 22Kohm 1/5W J T
R785	RCFT-E561J-000	RESISTOR-CARBON FILM	560ohm 1/5W J T
R786 R787	RCFT-E561J-000 RCFT-E392J-000	RESISTOR-CARBON FILM RESISTOR-CARBON FILM	560ohm 1/5W J T 3.9Kohm 1/5W J T
R788	RCFT-E392J-000	RESISTOR - CARBON FILM	3.9Kohm 1/5W J T
R799 R800	RCFT-E152J-000 RCFT-E152J-000	RESISTOR CARBON FILM	1.5Kohm 1/5W J T
11000	NOT 1 1 2 1 3 2 3 - 0 0 0	RESISTOR-CARBON FILM	1.5Kohm 1/5W J T
PCB	PCSR-04810-11B	MISCELLANEOUS PCB-TONE	A4D 4040
1 08	103N 04010 11B	F CB - TONE	A1R-481C
		INTEGRATED CIRCUITS	
IC705	ICOP-03150-SG0	IC OP AMP	NJM2068M SOP8
C731	CEET-F470M-CIO	CAPACITORS CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C732	CEET-F470M-CIO	CAPACITOR E/ALUMINUM	47uF M 25V 5x11 T
C733 C734	CCAT-J101K-AAB	CAPACITOR CERAMIC	100PF K 50V B T
C735	CCAT-J101K-AAB CCAT-J330J-AAZ	CAPACITOR CERAMIC CAPACITOR CERAMIC	100PF K 50V B T 33PF J 50V SL T
C736	CCAT-J330J-AAZ	CAPACITOR CERAMIC	33PF J 50V SL T
C737 C738	CEET-J100M-CI0 CEET-J100M-CI0	CAPACITOR E/ALUMINUM CAPACITOR E/ALUMINUM	10uF M 50V 5x11 T 10uF M 50V 5x11 T
C739	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11 T
C740 C741	CEET-J100M-CI0	CAPACITOR E/ALUMINUM	10uF M 50V 5x11 T
C741 C742	CFMT-N392J-DJ0 CFMT-N392J-DJ0	CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR	0.0039uF J 100V 5.8x12 T 0.0039uF J 100V 5.8x12 T
C743	CFMT-N183J-EK0	CAPACITOR F/POLYESTR	0.018uF J 100V 7.3x13 T
C744 C745	CFMT-N183J-EK0 CFMT-N153J-EK0	CAPACITOR F/POLYESTR CAPACITOR F/POLYESTR	0.018uF J 100V 7.3x13 T 0.015uF J 100V 7.1x13 T
C746	CFMT-N153J-EK0	CAPACITOR F/POLYESTR	0.015uF J 100V 7.1x13 T
C747 C748	CFMT-N823J-IK0 CFMT-N823J-IK0	CAPACITOR F/POLYESTR	0.082uF J 100V 10.6x14 T
:	4-3. ST-BY P.C.BOARD	CAPACITOR F/POLYESTR	0.082uF J 100V 10.6x14 T
	T O. O.I DI P.O.DOMNO		
CW702	U508-4M714-250	CONNECTORS WIRE-ASS'Y	1007#26 YEL-140 5P
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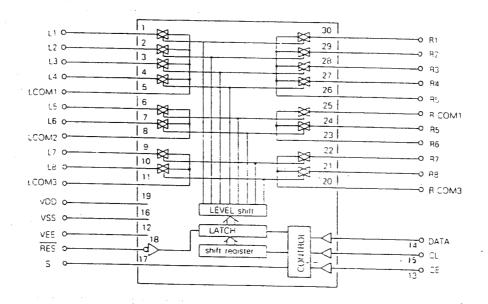
Ref. No. PCB SW704	Part No. PCSR-04810-11B SWTA-00220-060	Description MISCELLANEOUS PCB-ST BY SWITCH-TACT	A1R-481D SKHV10910(A) 12V 50mA
LD707	DPLE-00280-RG0	DIODES DISPLAY-LED	SAM5270 RED/GRN
	4-4. MUTE P.C.BOARD		
CN703	KNCW-00160-3S9	CONNECTORS CONNECTOR-WAFER	53015-0310 2mm-WHT
PCB SW726	PCSR-04810-11B SWTA-00220-060	MISCELLANEOUS PCB-MUTE SWITCH-TACT	A1R-481E SKHV10910(A) 12V 50mA
SW750	4-5. ENCODER VOLUME SWRT-00200-020	P.G.BOARD CONTROLS ENCODER VOLUME	EC16B243040H
CN704	KNCW-00160-5S9	CONNECTORS CONNECTOR-WAFER	53015-0510 2mm-WHT
R757 R758 R759 R760	RCFT-E103J-000 RCFT-E103J-000 RCFT-E103J-000 RCFT-E103J-000	RESISTORS RESISTOR-CARBON FILM RESISTOR-CARBON FILM RESISTOR-CARBON FILM RESISTOR-CARBON FILM	10Kohm 1/5W J T 10Kohm 1/5W J T 10Kohm 1/5W J T 10Kohm 1/5W J T
Q711 Q712	TRTC-01700-SD0 TRTC-01700-SD0	TRANSISTORS TRANSISTOR N-H FREQ TRANSISTOR N-H FREQ	KRC107M W/RESIST TO92M KRC107M W/RESIST TO92M
PCB	PCSR-04810-11B	MISCELLANEOUS PCB-ENCODER VOLUME	A1R-481F
C750 C751	CCAT-E222M-AAY CCAT-E222M-AAY	CAPACITORS CAPACITOR CERAMIC CAPACITOR CERAMIC	2200PF M 16V Y5R T 2200PF M 16V Y5R T
SW766	4–6. HEADPHONE P.C.B 0 SWPU-00602-060	DARD CONTROLS SWITCH-PUSH	SPUN24X1H DC25V 1A
R789 R790 R791 R792	RMOH-J221J-040 RMOH-J221J-040 RCFT-E152J-000 RCFT-E152J-000	RESISTORS RESISTOR-METAL OXIDE RESISTOR-METAL OXIDE RESISTOR-CARBON FILM RESISTOR-CARBON FILM	220ohm 2W J H 220ohm 2W J H 1.5Kohm 1/5W J T "AVR 18 ONLY" 1.5Kohm 1/5W J T "AVR 18 ONLY"
C789 C790	CCCT-J222K-0DB CCCT-J222K-0DB	CAPACITORS CAPACITOR CERAMIC CAPACITOR CERAMIC	2200PF K 50V B T "AVR 18 ONLY" 2200PF K 50V B T "AVR 18 ONLY"
CN708 CN709 CH703	U610-5M458-200 U510-4M432-200 U1T1-01520-Z10	CONNECTORS WIRE-ASS'Y WIRE-ASS'Y WIRE-ASS'Y	UL1007#20 GRN-580 6P UL1007#20 YEL-320 5P 1007#22 BLK-200 3.2pi
JK702	SKPH-00332-66W	MISCELLANEOUS PHONE JACK	HTJ-064-11



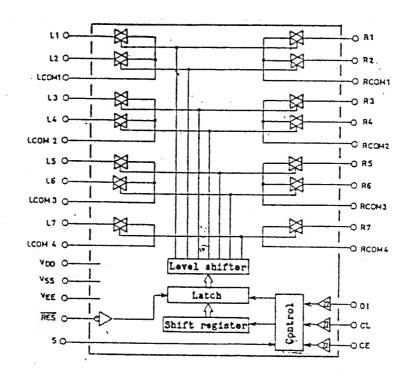
Ref. No. PCB	Part No. PCSR-04810-11B	Description PCB-SPEAKER ON/OFF	A1R-481G
D789 D790	DDTS-00070-SO0 DDTS-00070-SO0	DIODES DIODE-SI DIODE-SI	1SS133 (40V 0.11A) DO-40 T 1SS133 (40V 0.11A) DO-40 T
C788	CCAT-J104Z-AAF	CAPACITORS CAPACITOR CERAMIC	0.1uF Z 50V F T
	4-7. VIDEO 3 INPUT P.C.	BOARD CONNECTORS	
CW706 CH705	UM08-50860-000 U1T1-01520-Z10	WIRE-ASS'Y WIRE-ASS'Y	1007#26,2547#28 BR,BK 460 1007#22 BLK-200 3.2pi
R796 R797 R798	RCFT-E471J-000 RCFT-E471J-000 RCFT-E750J-000	RESISTORS RESISTOR-CARBON FILM RESISTOR-CARBON FILM RESISTOR-CARBON FILM	470ohm 1/5W J T 470ohm 1/5W J T 75ohm 1/5W J T
JK701 PCB	SKRC-00380-031 PCSR-04810-11B	MISCELLANEOUS SOCKET-RCA PCB-VIDEO 3 INPUT	JK0300081G A1R-481H
C763 C764 C771 C772 C773 C774	CCAT-J104Z-AAF CCAT-J104Z-AAF CCAT-J101K-AAB CCAT-J101K-AAB CCAT-J101K-AAB CCAT-J101K-AAB CCAT-J101K-AAB	CAPACITORS CAPACITOR CERAMIC CAPACITOR E/ALUMINUM	0.1uF Z 50V F T 0.1uF Z 50V F T 100PF K 50V B T "AVR 18 ONLY" 100PF K 50V B T "AVR 18 ONLY" 100PF K 50V B T "AVR 18 ONLY" 100PF K 50V B T "AVR 18 ONLY" 33uF M 25V 5x11 T
	4-8. HEAT SINK GUIDE F	MISCELLANEOUS	作進し関係が「推進し、よう」
PCB	PCSR-04810-11B	PCB-HEAT SINK GUIDE	A1R-481I

IC BLOCK DIAGRAMS

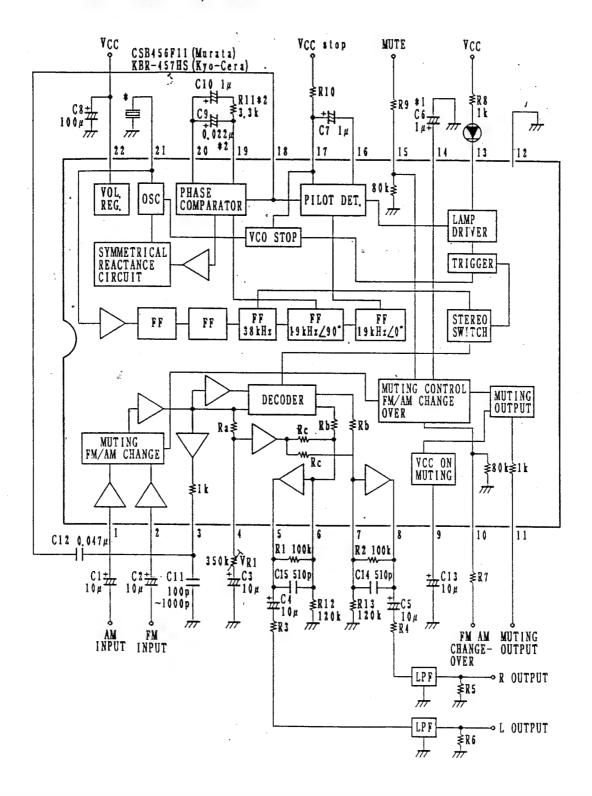
IC402, IC403: LC7821 ANALOG FUNCTION SELECTOR



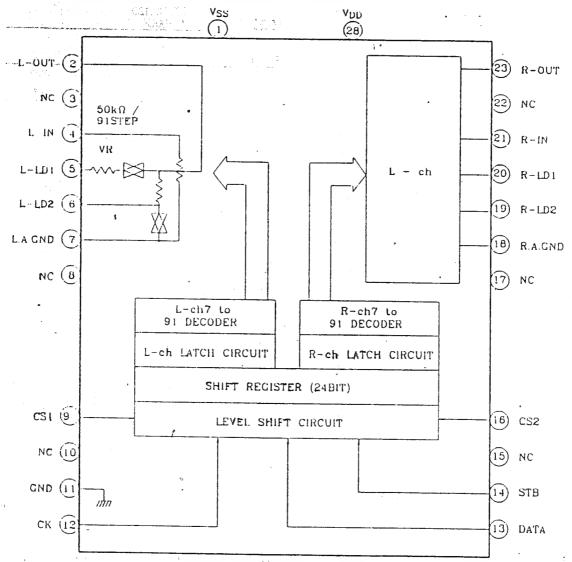
IC804: LC78213 ANALOG FUNCTION SELECTOR



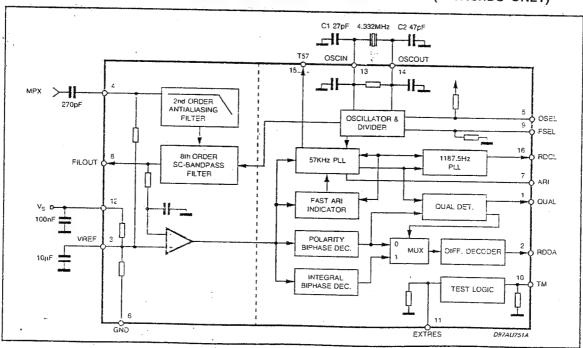
LA3401: IC603 FM/AM MPX IC

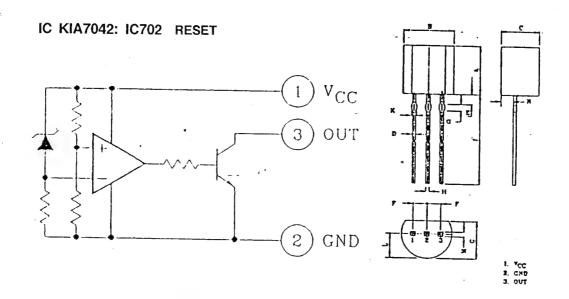


IC805, IC806, IC807: KIA9459F VOLUME CONTROL



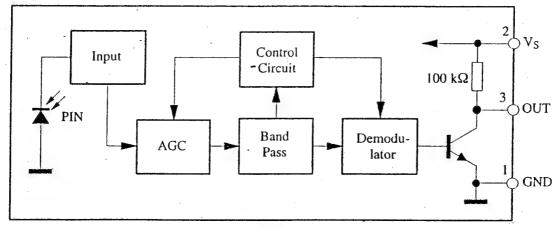
BLOCK DIAGRAM TDA7479: IC604 RDS DEMODULATOR + FILTER (AVR18RDS ONLY)

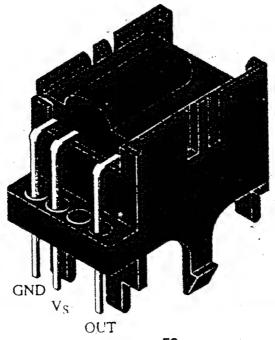




IC TFMT5.0: IC703 REMOTE RECEIVER

Block Diagram



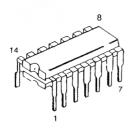


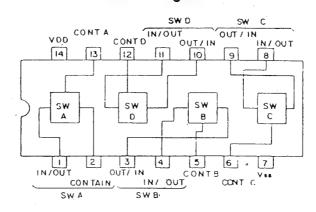
LC4966B: IC406

BIPOLAR SWITCH

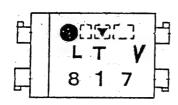
Block Diagram

Package Outline





LTV817B: IC5 PHOTO COUPLER

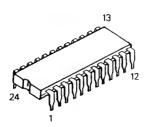


Pin No. and internal connection diagram 1 1. Anode 2. Cathode 3. Emitter 4. Collector

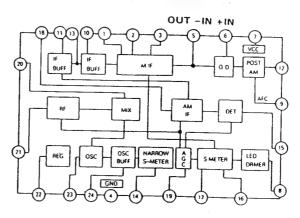
LA1266: IC601

AM/FM IF

Package Outline

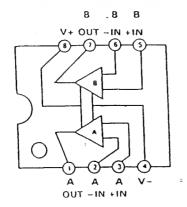


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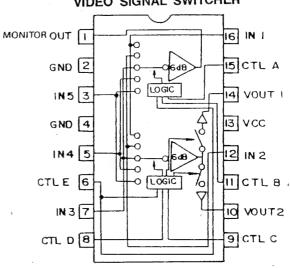


IC705, IC6, IC7, IC401, IC404, IC405, IC408, IC801, IC802, IC803, IC808, IC809, IC810, IC811:

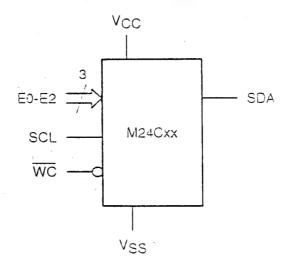
NJM2068DD/ NJM4558M DUAL OP AMP



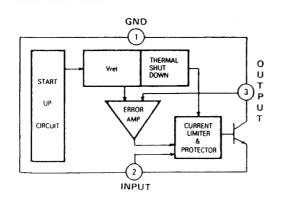
IC901: BA7625
VIDEO SIGNAL SWITCHER



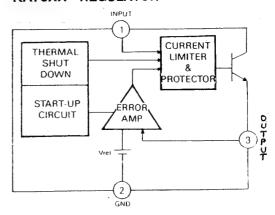
24C0281P: IC704 2K CMOS EEPROM



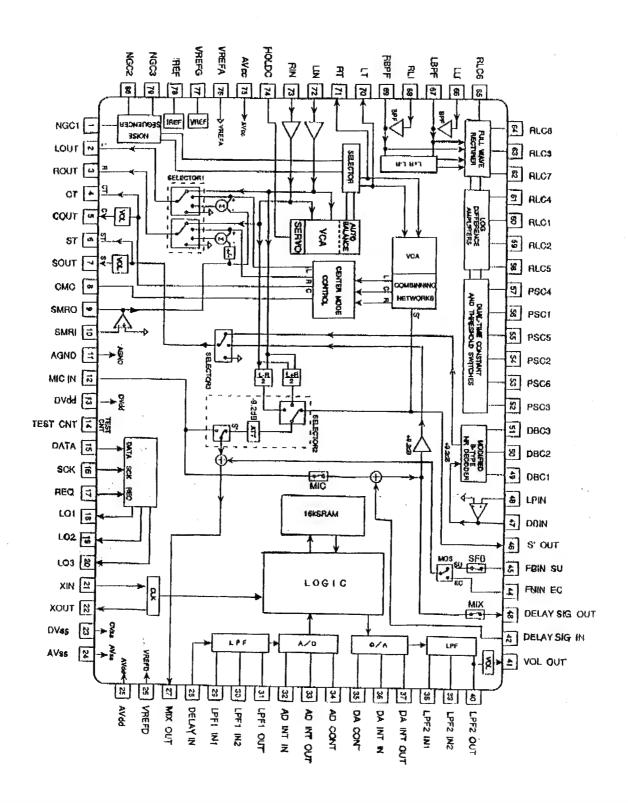
IC3: KA79XX REGULATOR



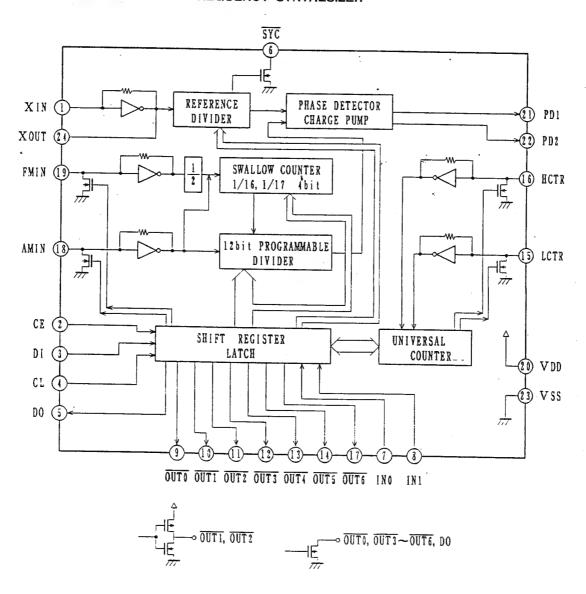
IC1, IC2, IC4: KA78XX REGULATOR



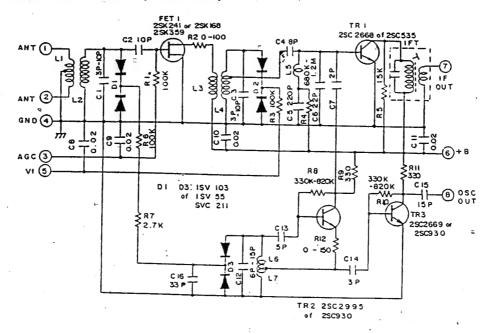
IC407 DOLBY PRO LOGIC SURROUND DECODER : NJW 1103F



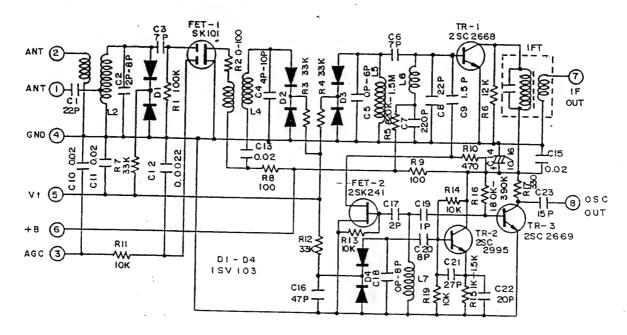
LC7218JM: IC602 PLL FREQUENCY SYNTHESIZER



FRONT END: FE601 (FTA3-509H) U.S.A. Version



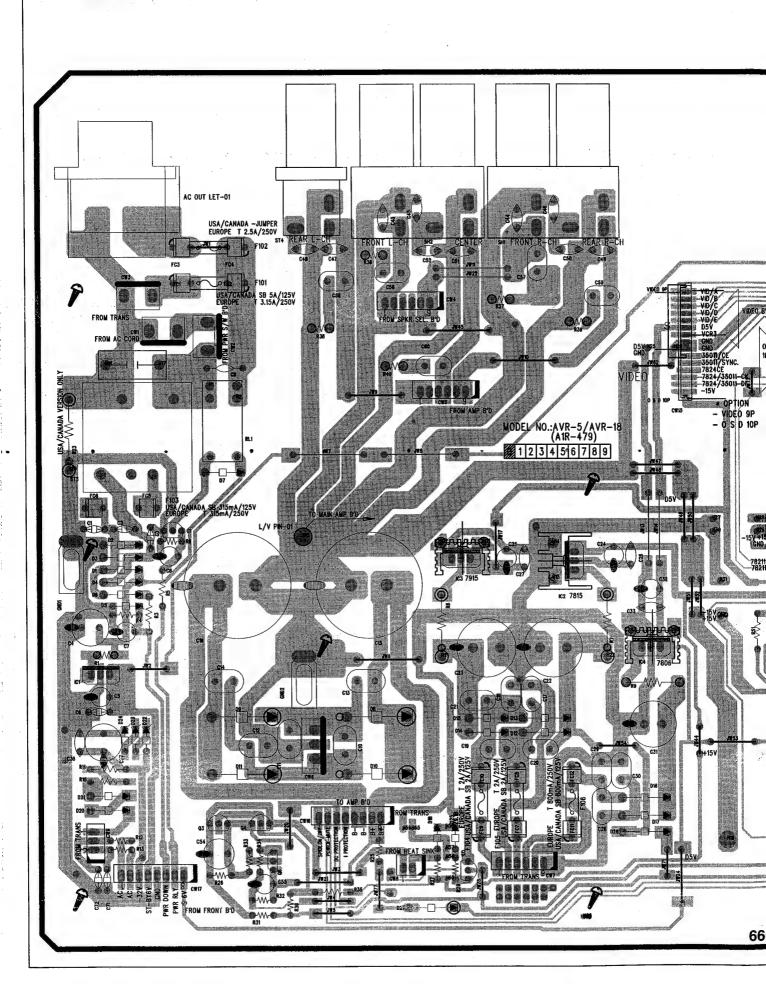
FRONT END: FE601 (FTA4-460H) EU. Version

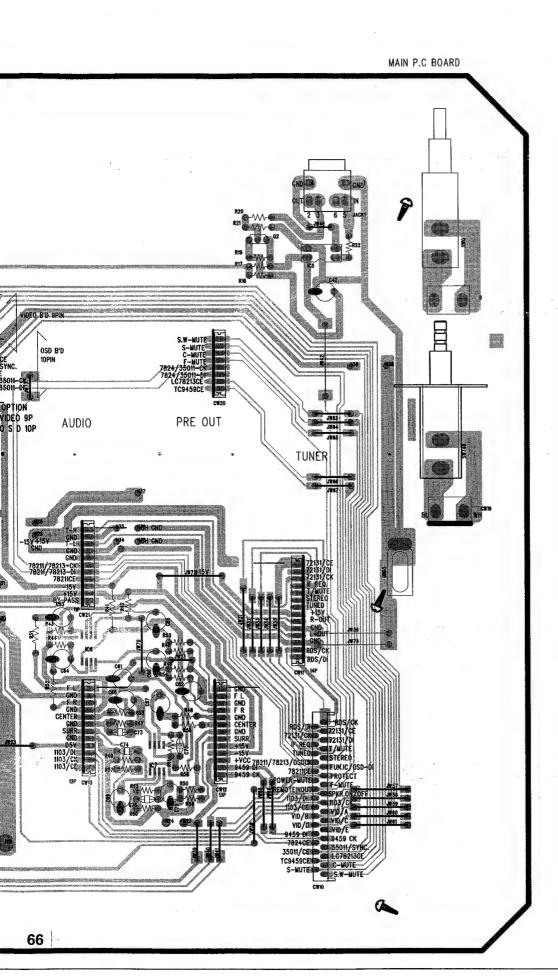


TRANSISTORS LEAD IDENTIFICATION

TRANSISTOR		FRONT VIEW	BOTTOM VIEW
KTD1302 KTC3200/KTC2240 KTC3198/KTC1815 KTC1923/KTC3194 KTA2400 KTA1268/KTA970 KTA1266/KTA1015	•	E C B	C C B
DTC114YS DTA114YS KRA107M		E C B	
MPSA06 MPSA56		E	ECB
KTA1024 KTC3206 KTA1267Y		E C B	E C B
2SC4137 2SC4883 2SA1859		- E C B	E C B
2SK168D		D G S	D G S
2SA1695-Y 2SC4468-Y		B C E	BCE
		TERMINAL NAME	
	D→DRAIN G→GATE G→SOURCE		B→BASE C→COLLECTOR E→EMITTER

P. C. BOARD





F

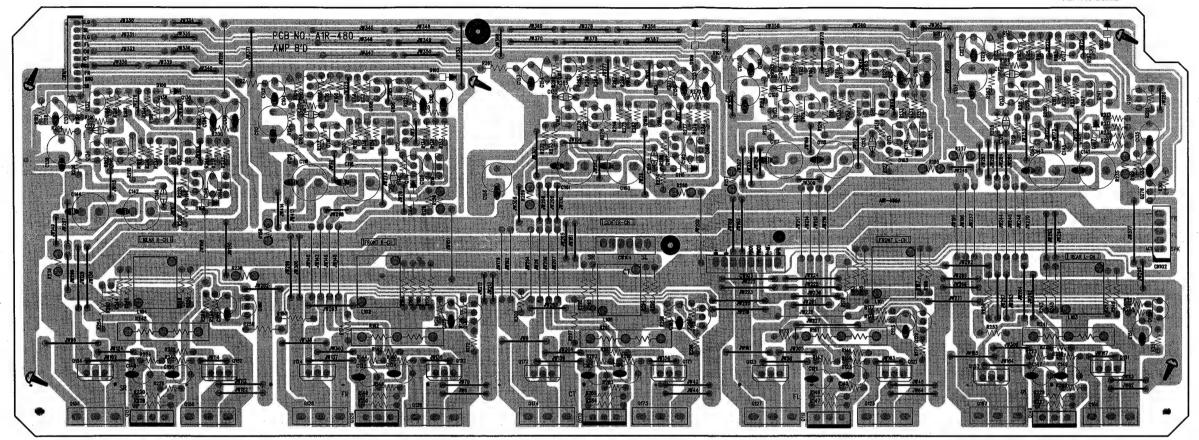
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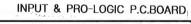
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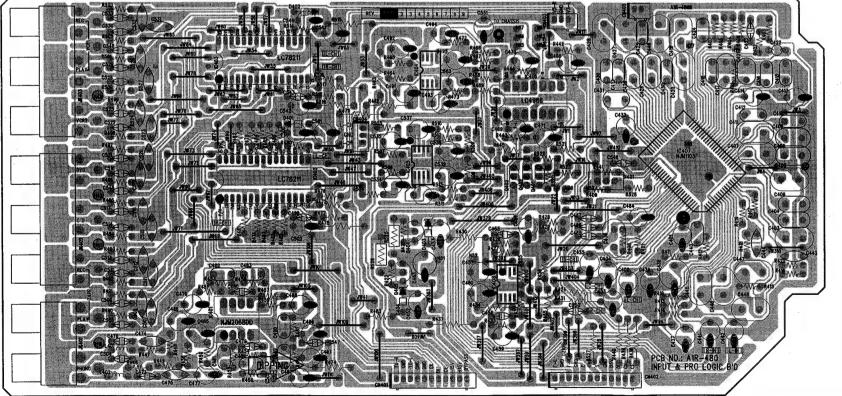
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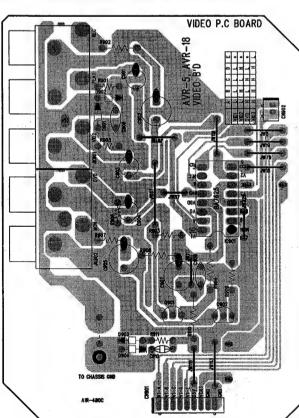
A

AMP P.C BOARD

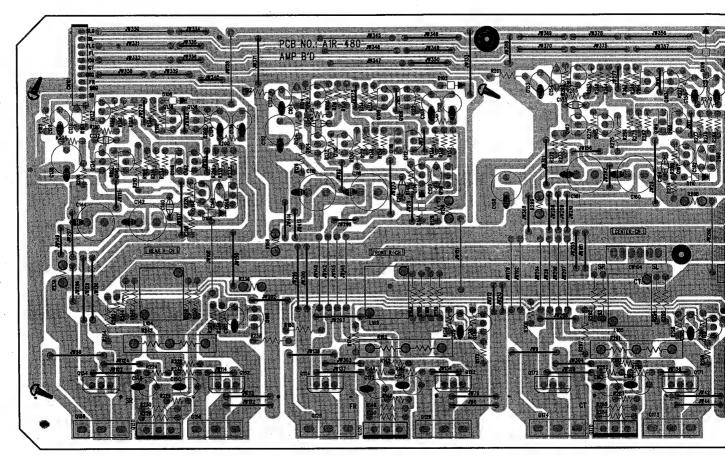


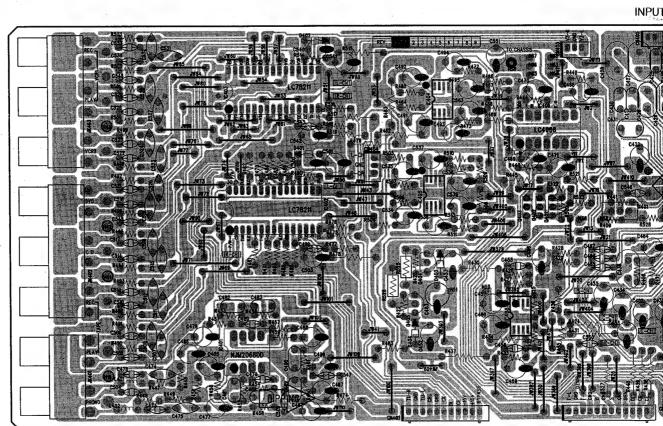




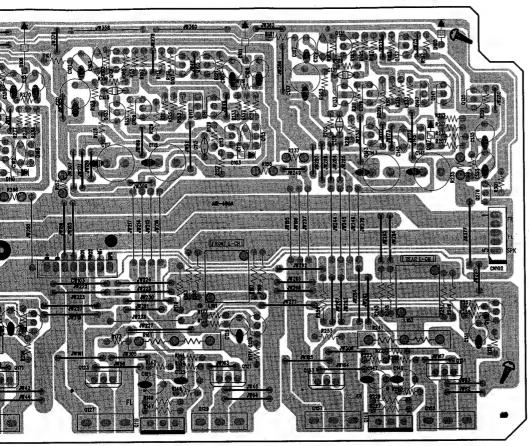


P. C. BOARD

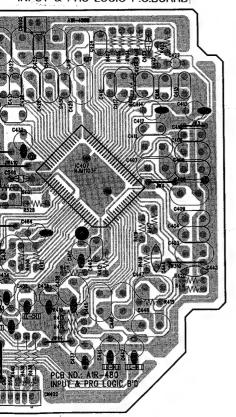


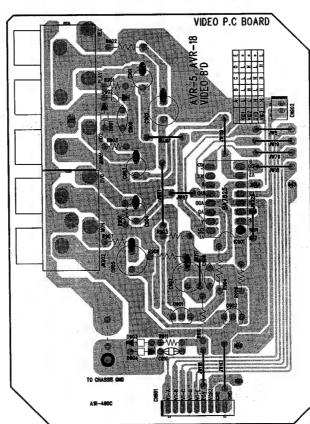


AMP P.C BOARD



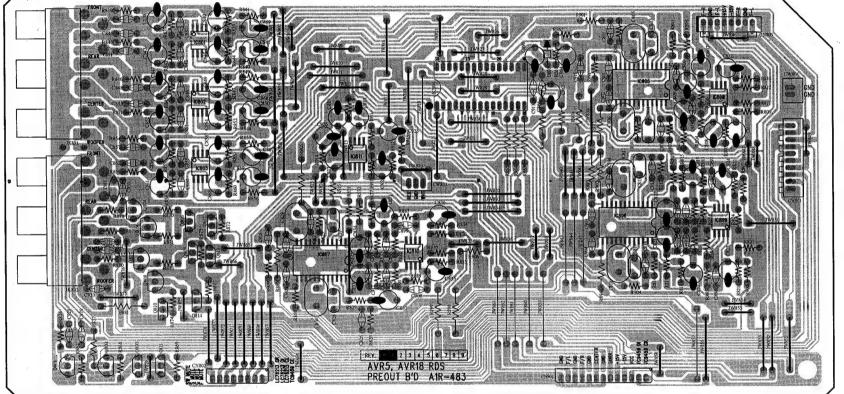


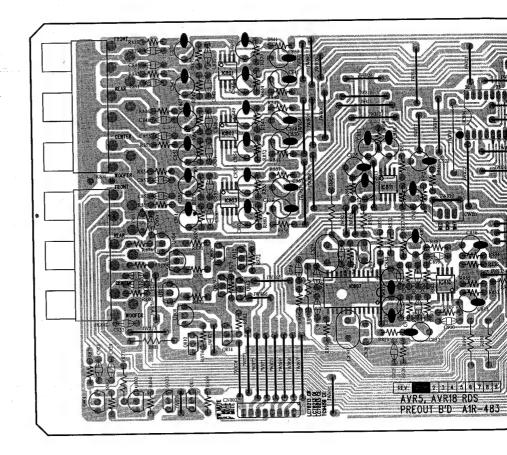




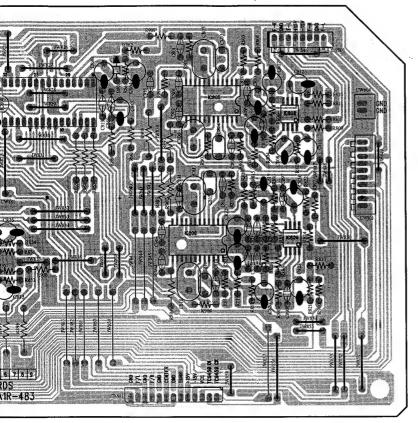


PRE/IN OUT P.C BOARD

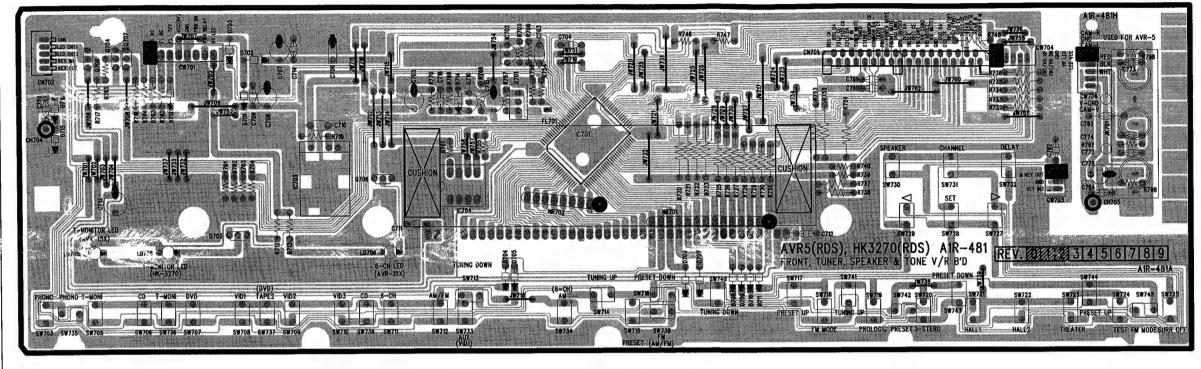




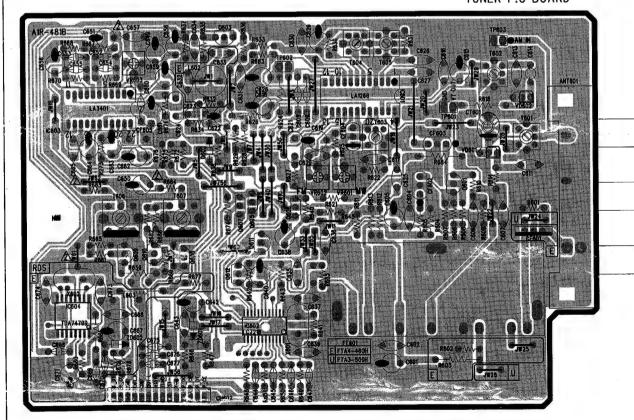
PRE/IN OUT P.C BOARD



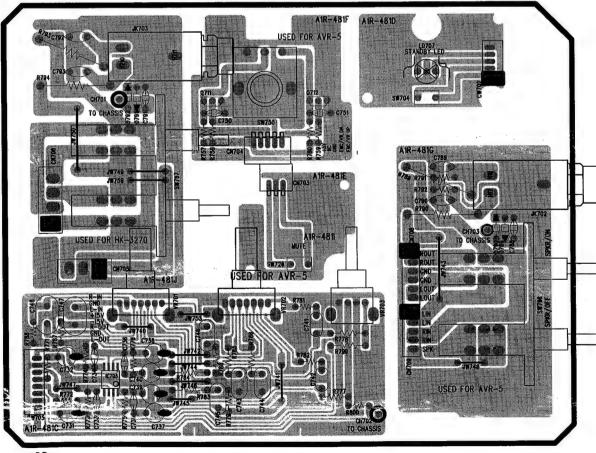
FRONT P.C BOARD



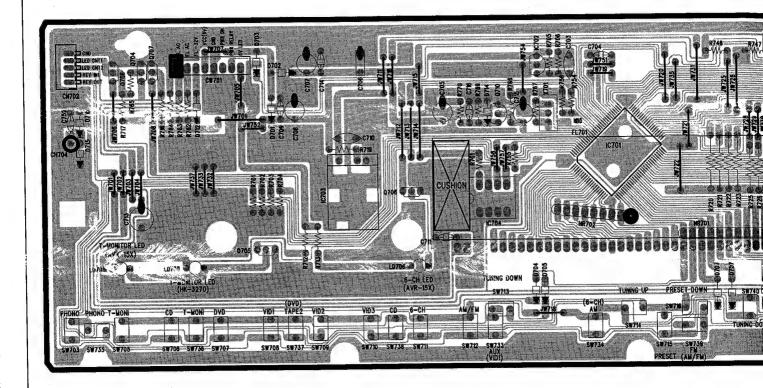
TUNER P.C BOARD

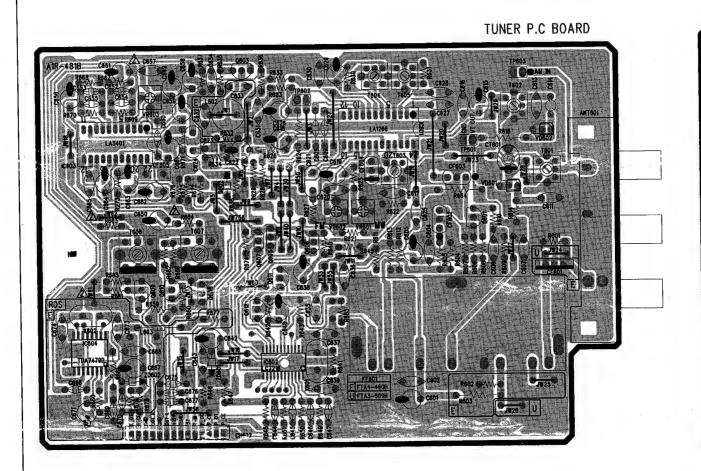


HEADPHONE/MUTE/TONE/ENCODER VOLUME/STANDBY P.C BOARD

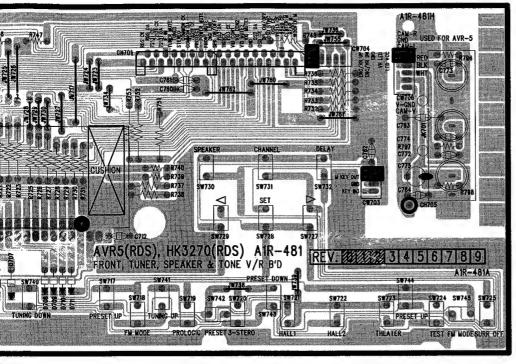


P. C. BOARD

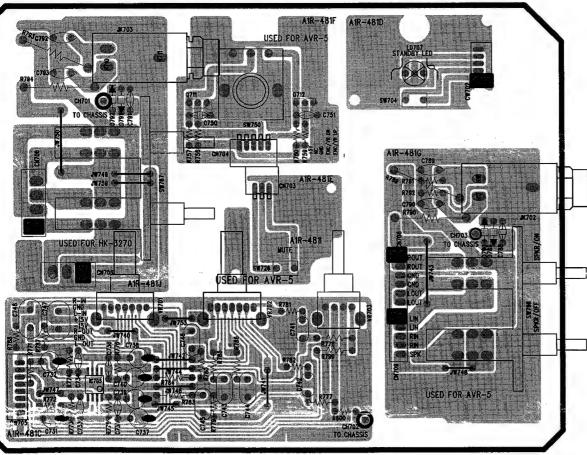


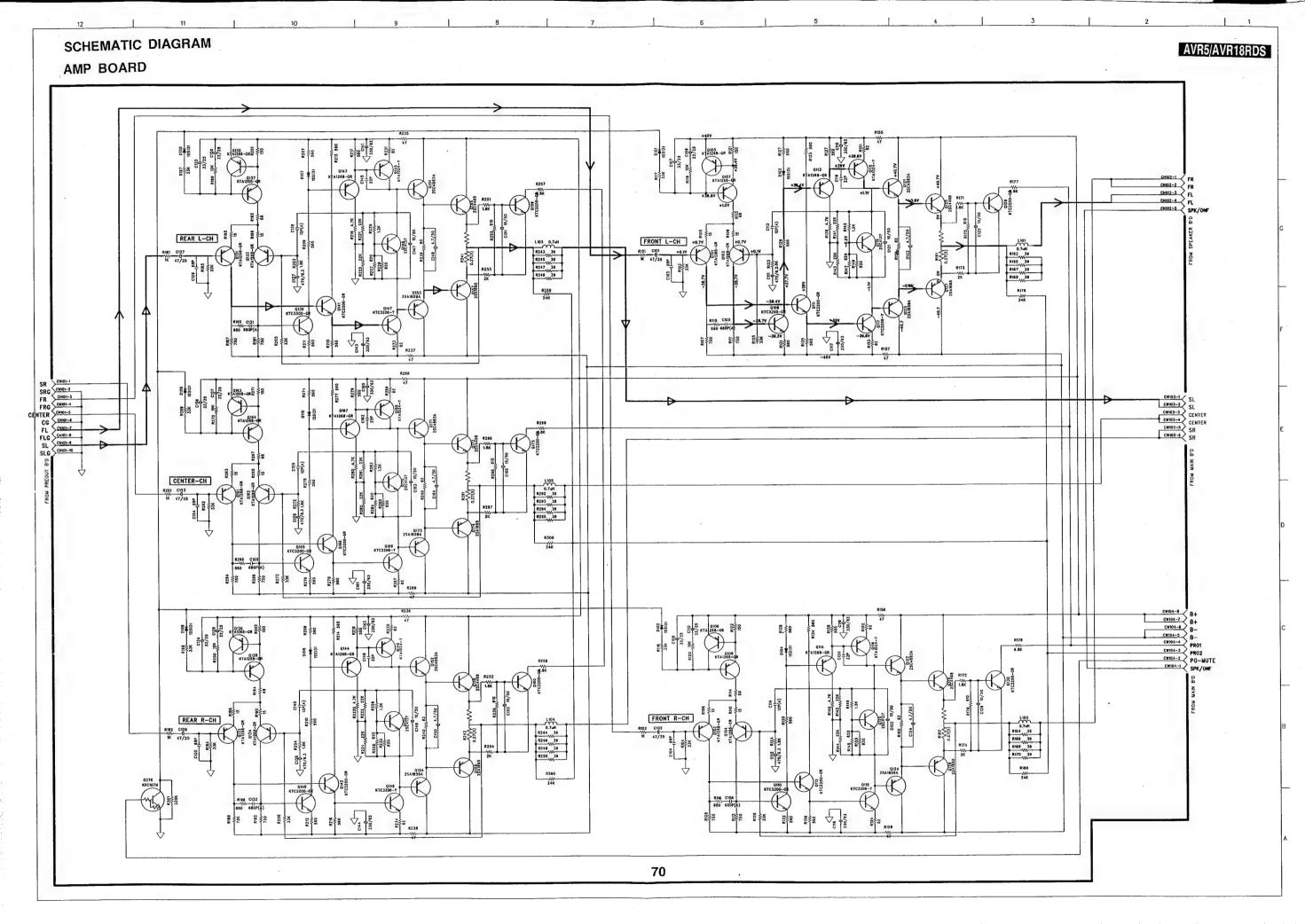


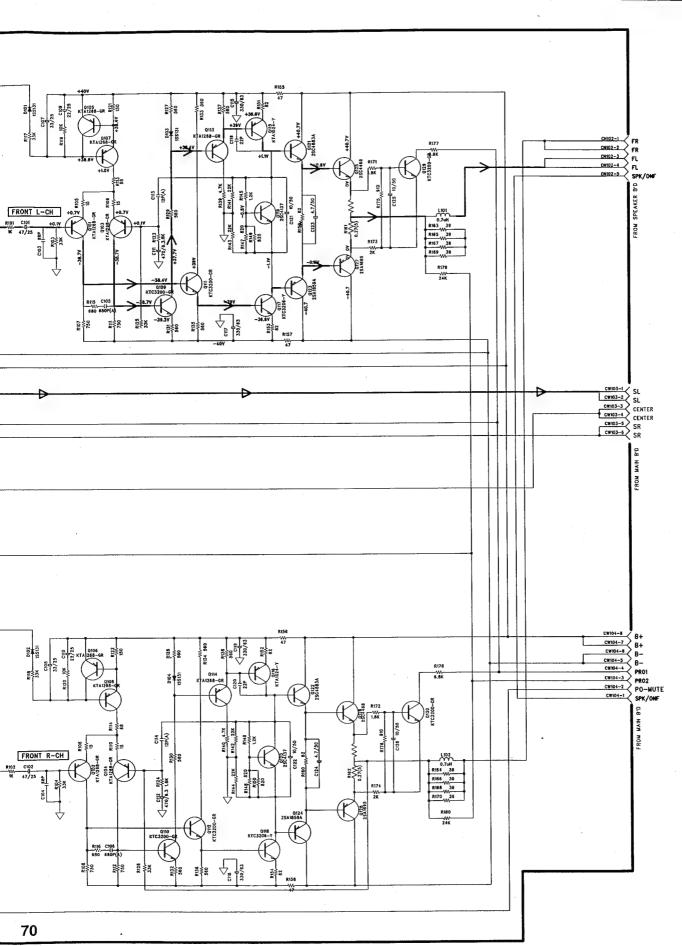
FRONT P.C BOARD



HEADPHONE/MUTE/TONE/ENCODER VOLUME/STANDBY P.C BOARD







SCHEMATIC DIAGRAM AVR5/AVR18RDS FRONT BOARD TO VOLUME 8'D CW704-5

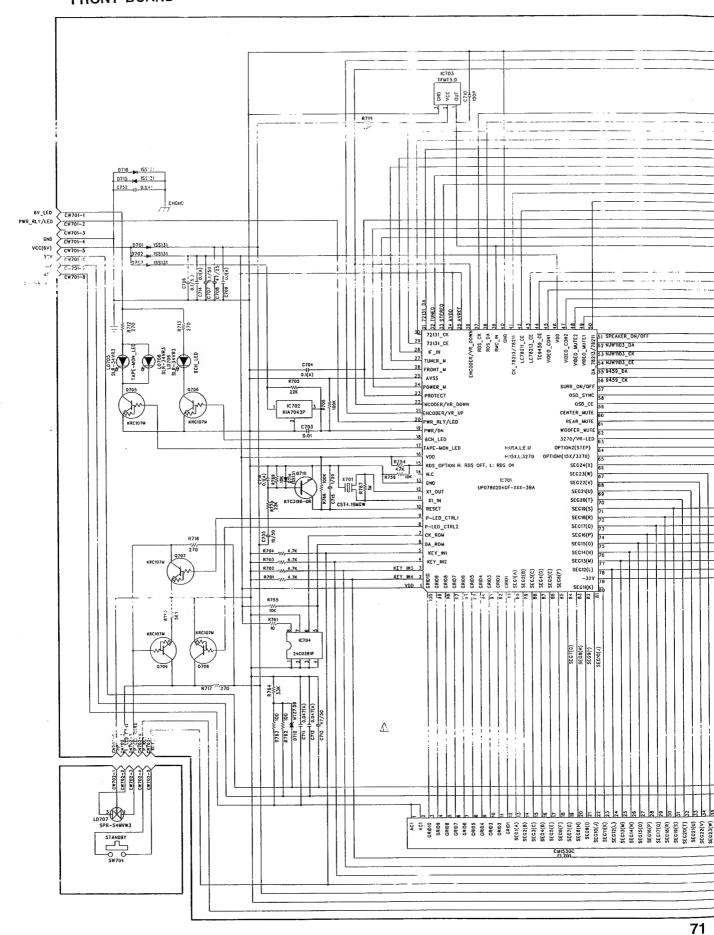
CW704-4

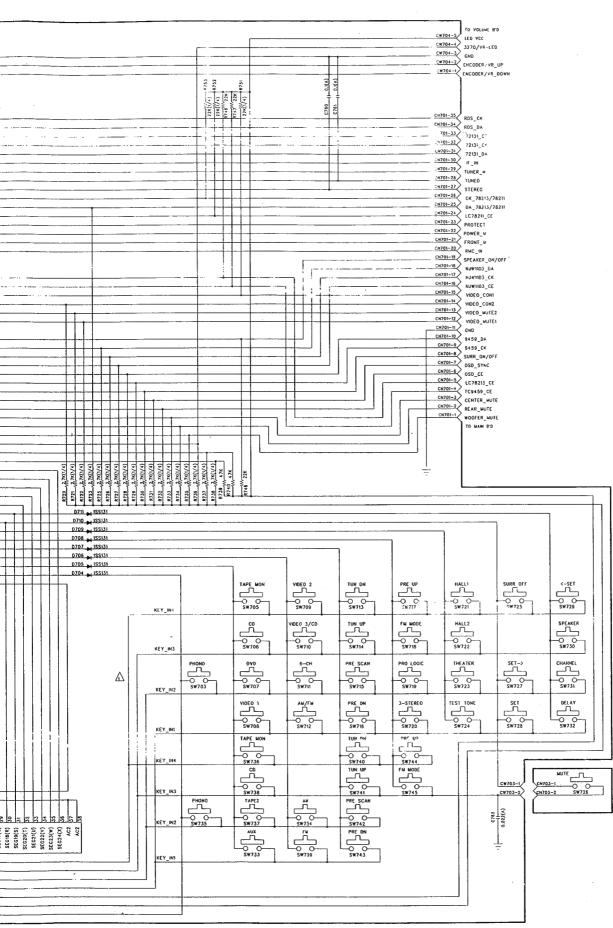
3270/V9-LED CW704-3 CW704-2 CW704-2 CW704-2 CW704-2 ENCODER/VR_DOWN IC703 TFWT5.0 CND CN701-35 RDS_CK
CW201-34 RDS_DA
- 791-34 72131_C
- 72131 0716 | ISS'31 0715 | ISS'31 C752 | O.I(A¹ 6V_LED
PWR_RLY/LE0
CW701-1
CW701-2
CW701-3
CW701-4
CW701-5 CH701-24 LC78211_CE
CH701-23 PROTECT
CH701-22 POWER_ CM701-21 CM701-20 CM701-19 CM701-19 CM701-18 CM701-18 CM701-18 NJW1103_DA VCC(8V) CW701-5
30V CW701-5
CW701-5 0702 ISS131 CN701-17 NJW1103_CK CN701-16 NJW1103_CK CW701-8 CN701-15 VIDEO_CON1 VIDEO_CON2 72131-CK 22131-CK 221 CH701-13 VIDEO_MUTE2 CH701-12 VIDEO_WUTE1 270 CN701-11 GND CN701-10 9459_DA CN701-9
9459_CX
CN701-8
SURR_ON/OFF
CN701-7
CN701-6
OSD_CE ≤ 55 9459_DA 0.1(A) R705 CH701-5
CH701-4
CH701-3
CH701-2
CN701-1
W00FER_MUTE 56 9459 CK POWER_M 22K PROTECT
22
ENCODER/VR DOWN OSD_SYNC IC702 KIA7042P OSD CE 21 ENCODER/VR_UP
20 PWR_RLY/LED
19 PWR/ON REAR MUTE TO WAN 8'D WOOFER_WUTE 18 6CH LED 3270/VR-LED H:15X.L:3270 OPTIONI(15X/3270) SEG23(W) SEG22(V) UP0780204CF-XXX-38A SEG21(U) 11 X1_IN 10 RESET D711 155131 D710 155131 SEGIR(S) P-LED_CTRL1 SEGI8(R) SEGI7(Q) D709 155131 10/50 0708 155131 SEG16(P) R716 0707 sissi31 DA ROM SEG15(0) R704 W 4.7K SEG14(N) SEG13(M) D706 ... 1SS131 R703 _____ 4.7K D705 15S131 KEY_IN2 KEY INS 3 SEG12(L) -32V R701 _____ 4.7K <-\$ET -○ ○-\$₩729 TUN DN HALL1 PRE UP

C:
2%717 KEY_IN R761 SPÉAKER
O OSW730 HALL2 —O O-SW722 _______ TUN UP O O SW714 fC704 KEY_IN3 24C02B1P SET-> -O O-SW727 PRE SCAN PRO LOGIC CHANNEL --O O-SW731 PHONO
SW703 Δ KEY_IN TEST TONE
O O
SW724 VIDEO 1 PRE DN 3-STEREO SET DELAY O O SW732 KEY_IN Δ SW744
FM MODE
SW745 TAPE MON CD SW738 TAPE2 C#703-1 C762 AUX 0 0 S₩733 71

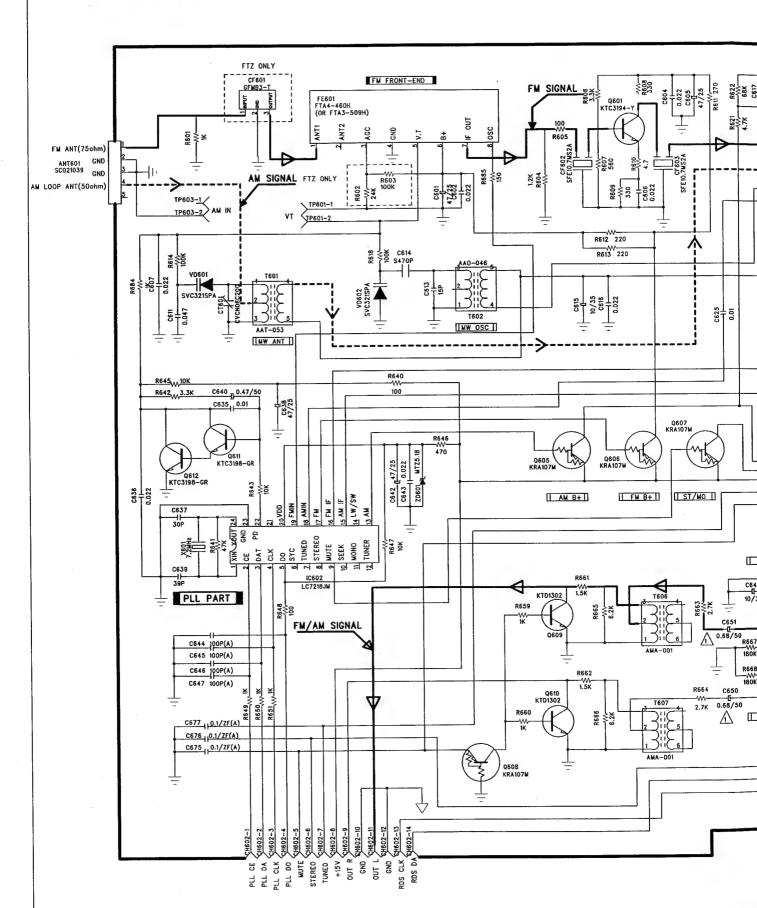
SCHEMATIC DIAGRAM

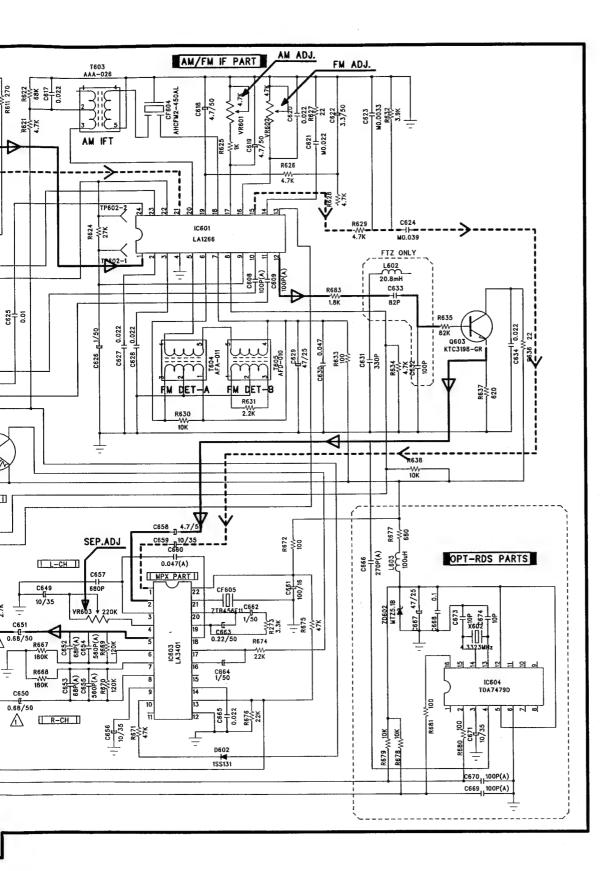
FRONT BOARD

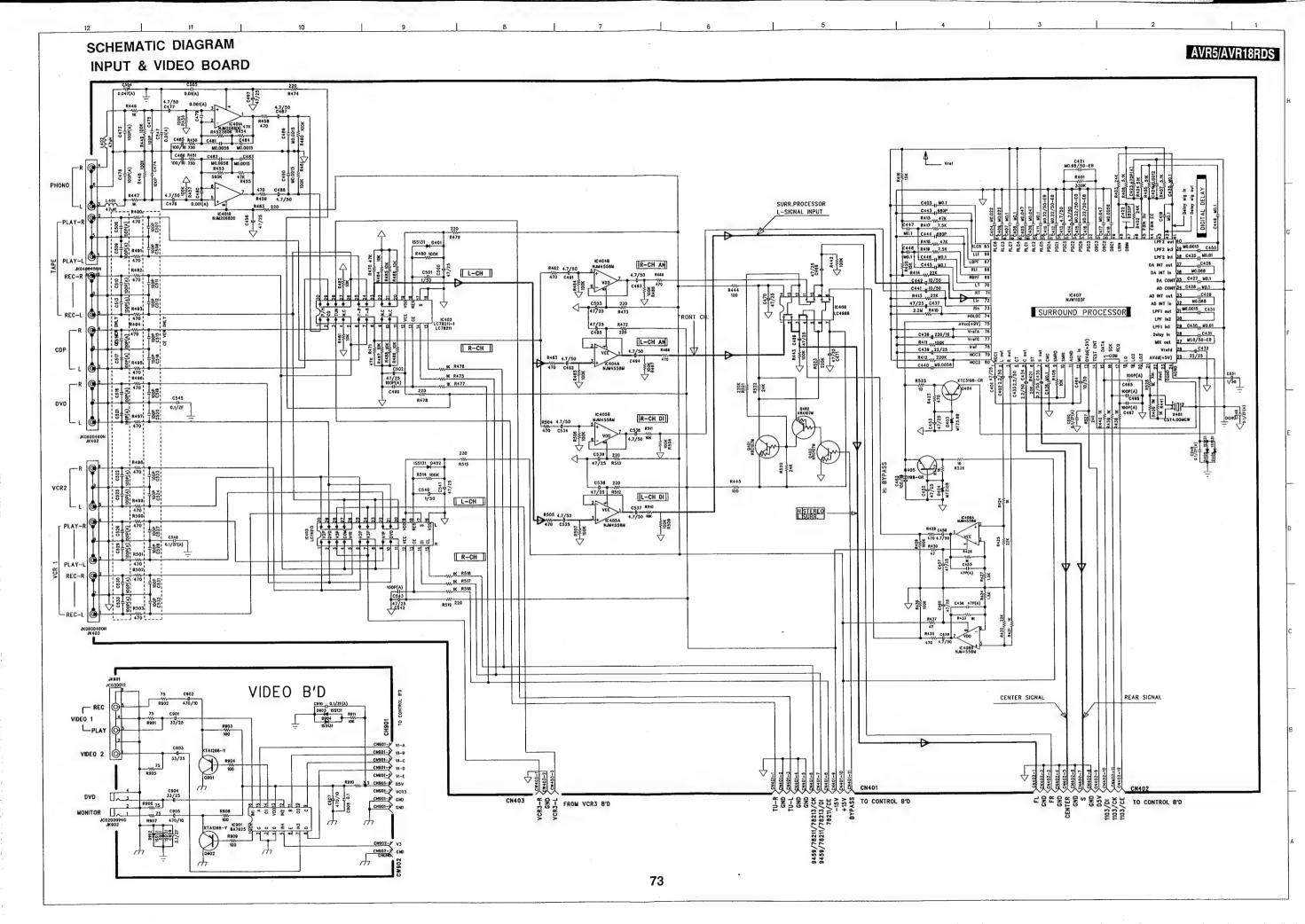


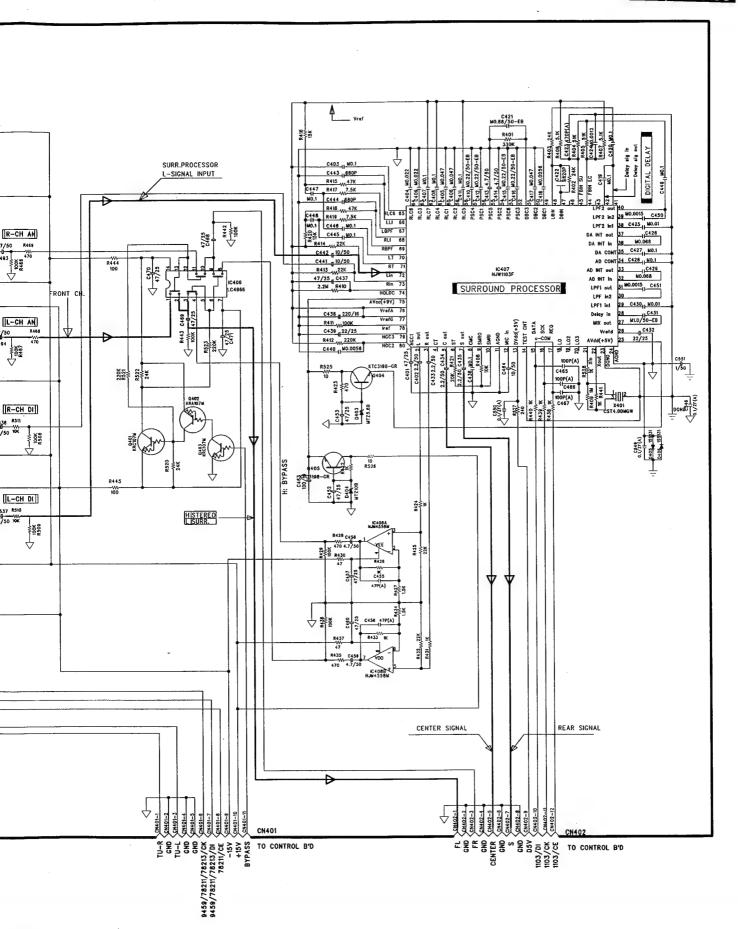


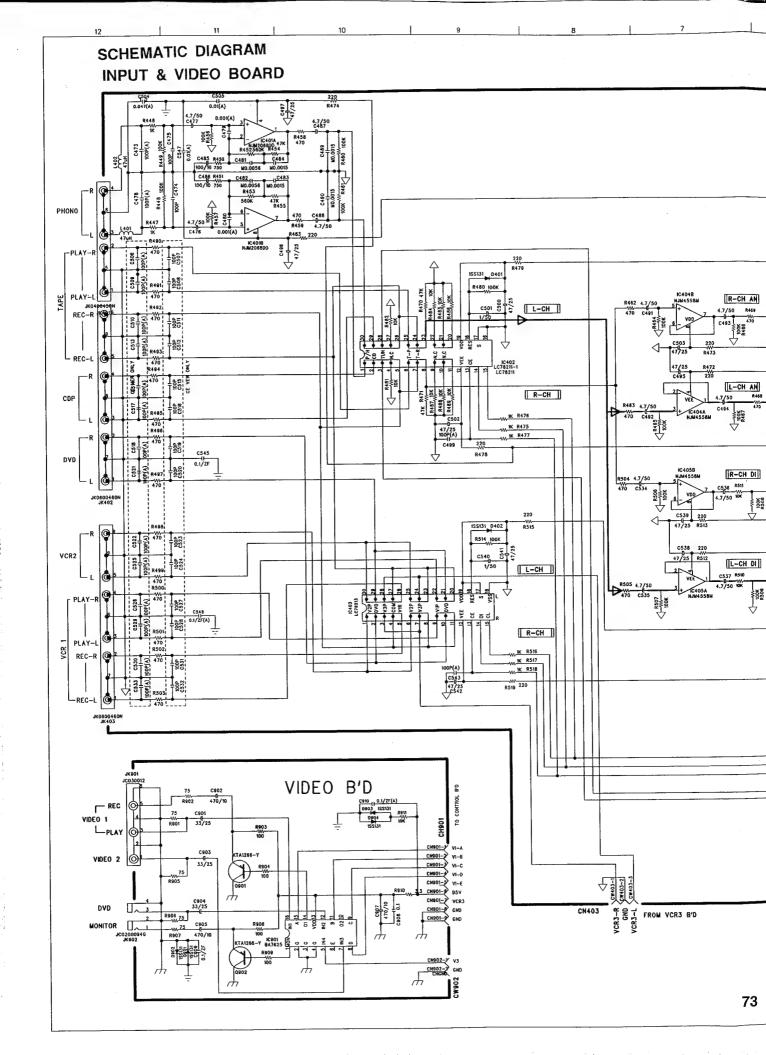
SCHEMATIC DIAGRAM TUNER BOARD



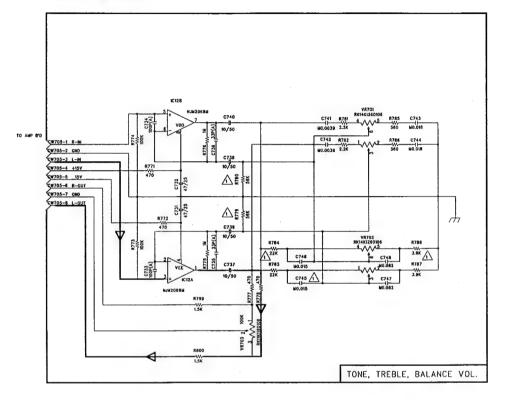




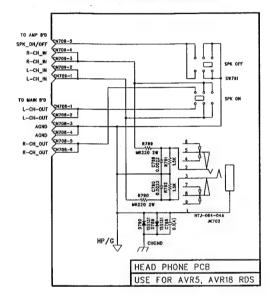




TONE BOARD

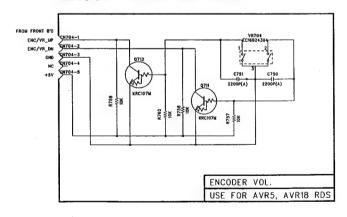


HEAD PHONE BOARD

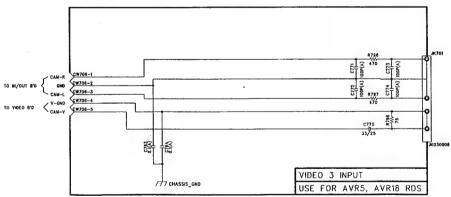


*DESTINATION OPTION				
LOC. NO.	USA	EUROPE		
R791, R792	X	0		
C771 - C774 C789, C790	x	0		

ENCODER VOL BOARD

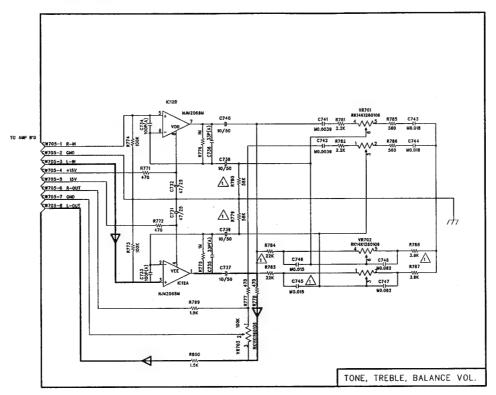


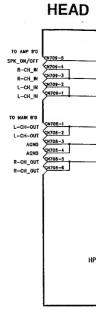
VIDEO 3 INPUT BOARD



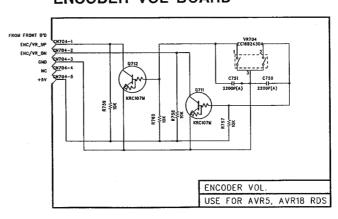
SCHEMATIC DIAGRAM

TONE BOARD

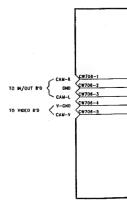




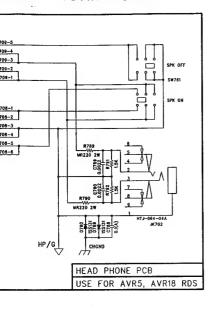
ENCODER VOL BOARD



VIDEO



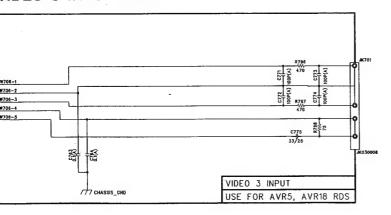
HEAD PHONE BOARD

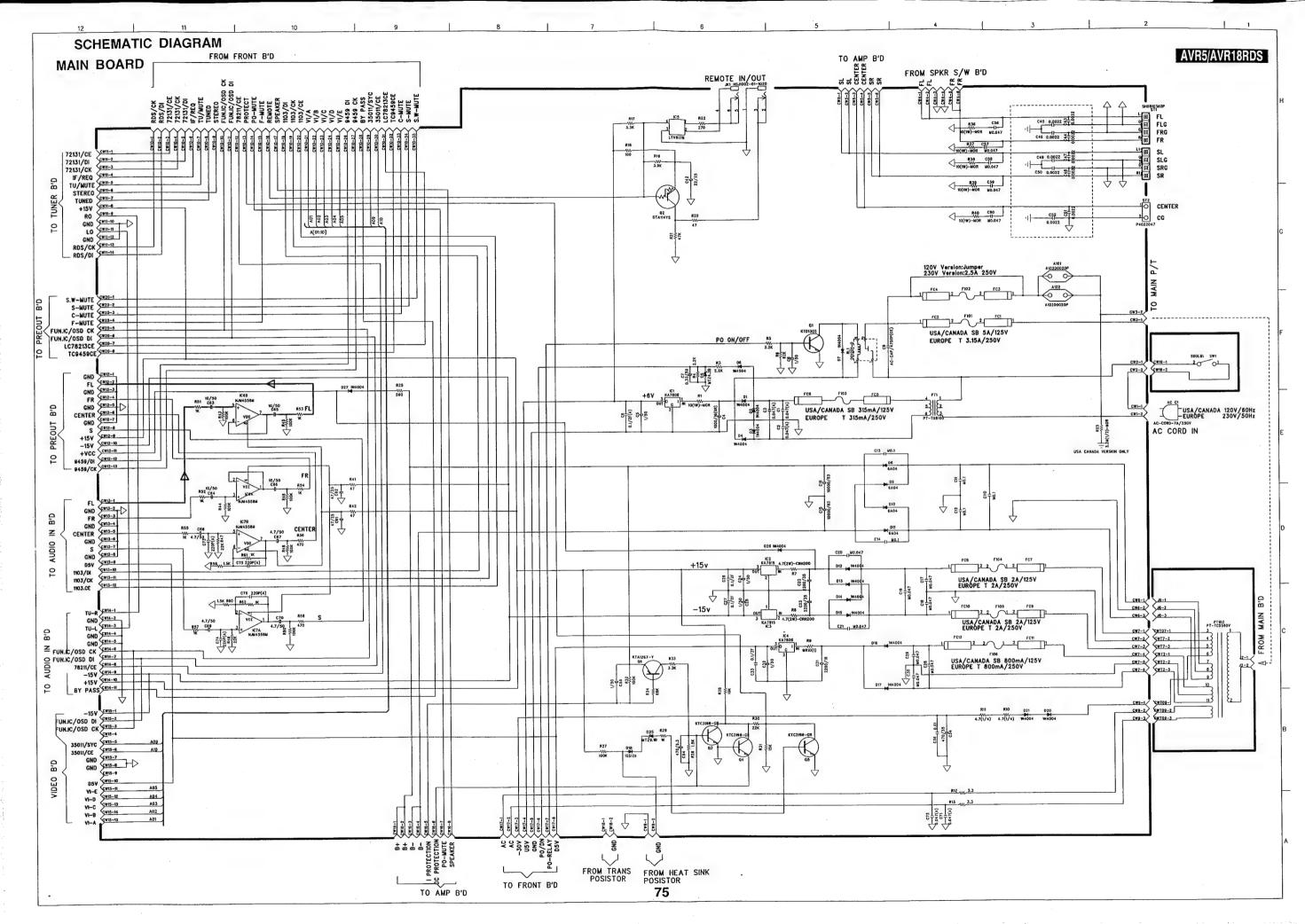


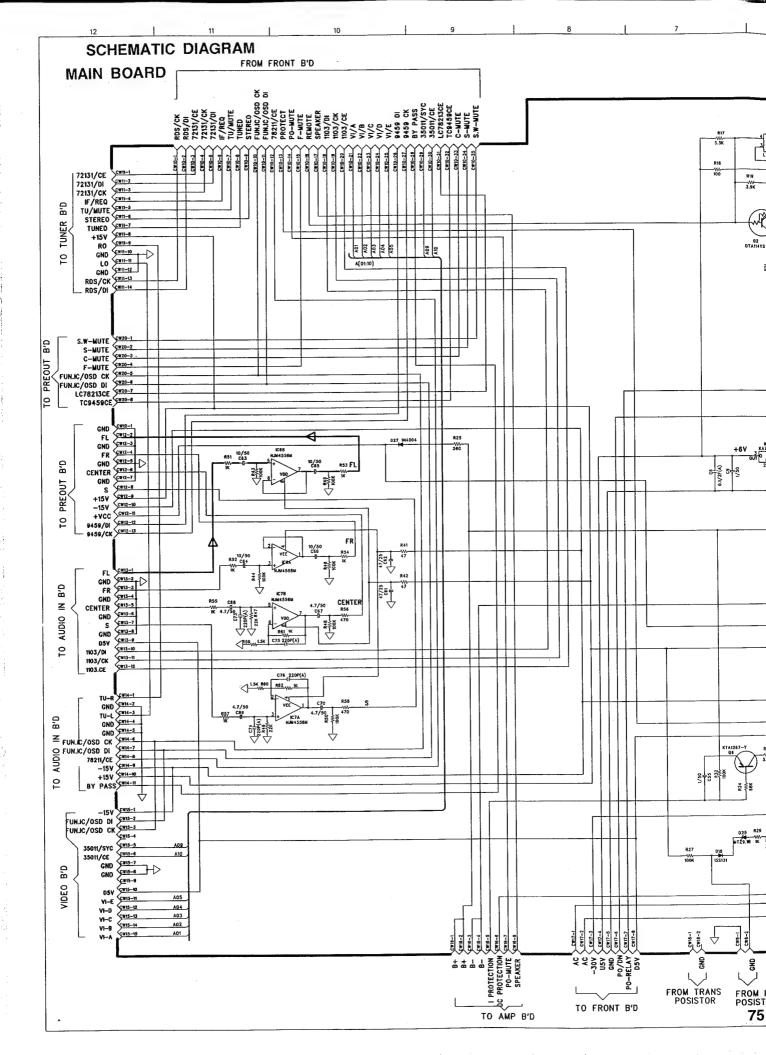
*DESTINATION OPTION

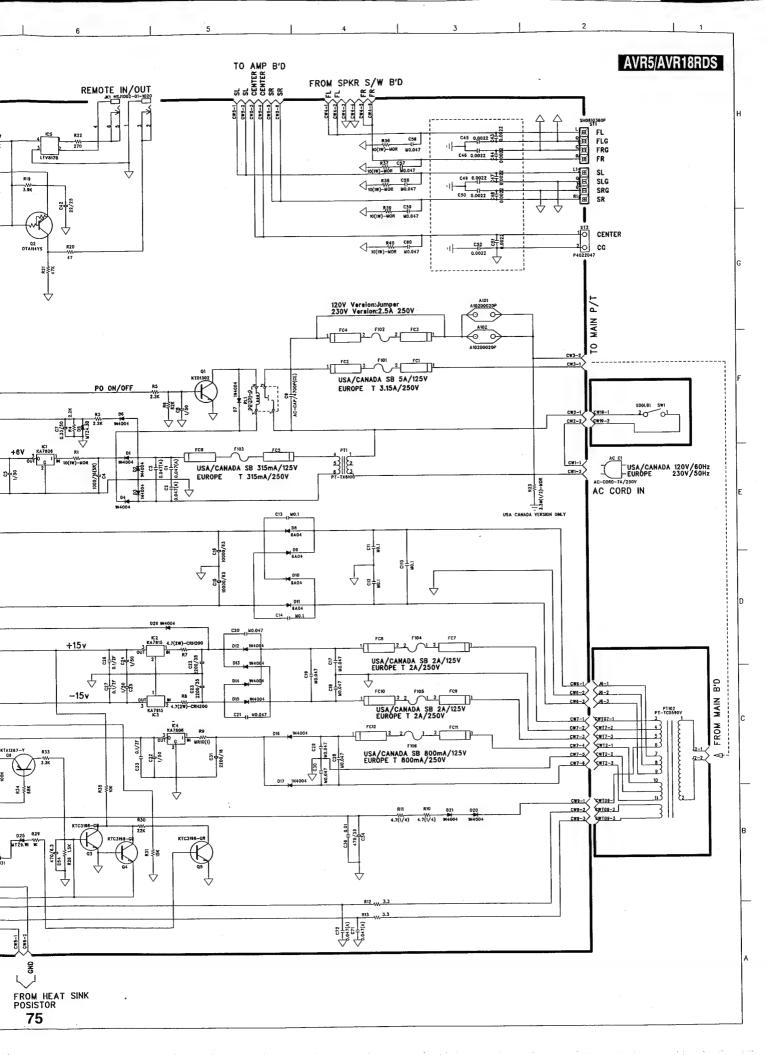
LOC. NO.	USA	EUROPE
R791, R792	x	0
C771 - C774 C789, C790	x	0

VIDEO 3 INPUT BOARD

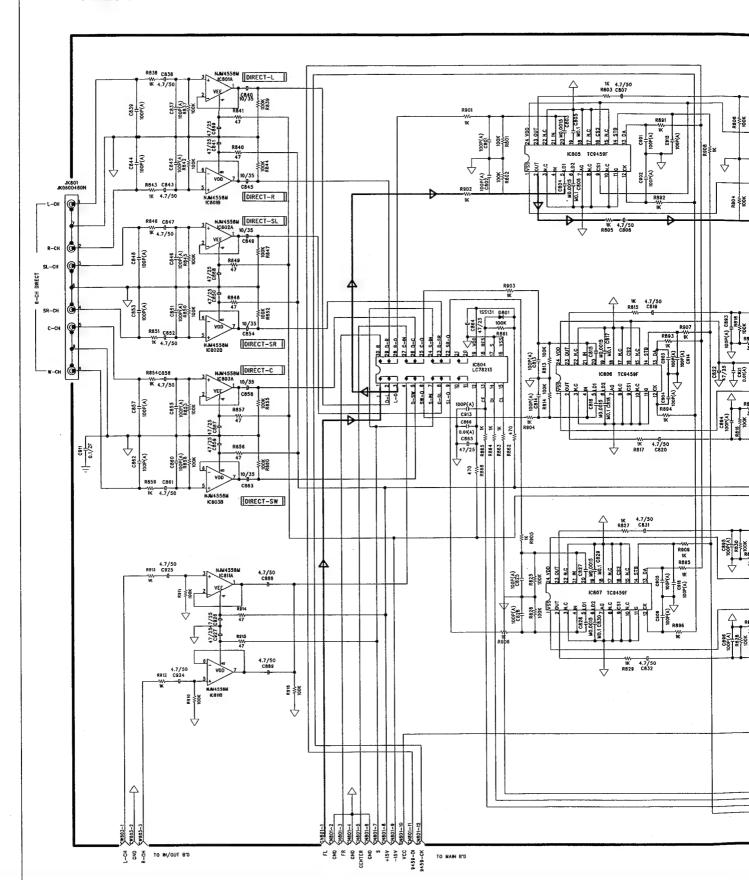




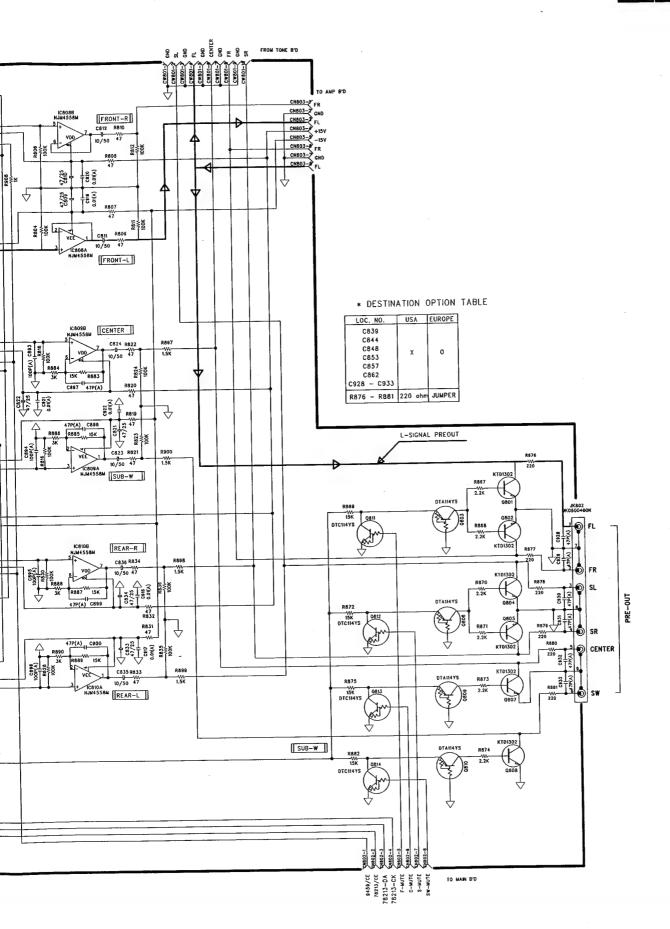


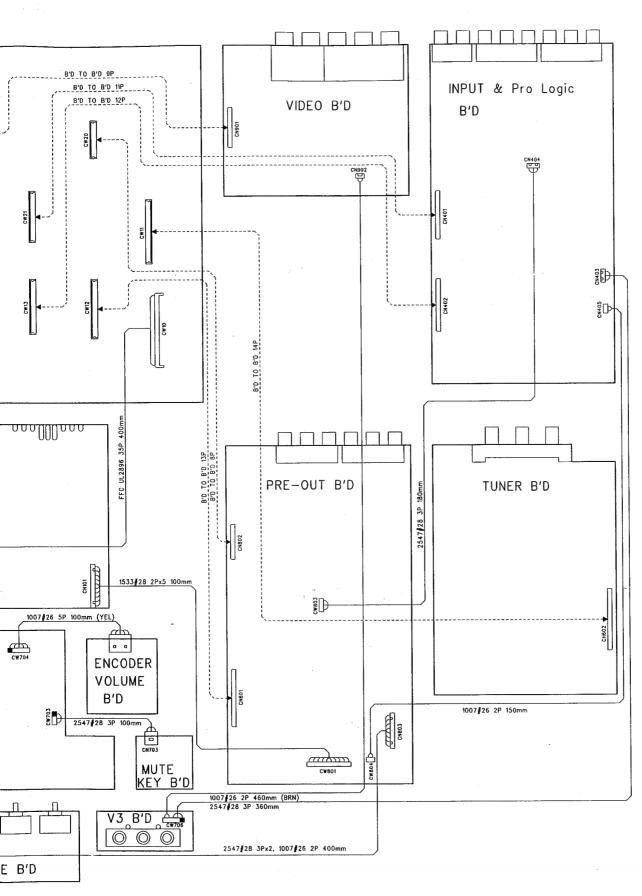


SCHEMATIC DIAGRAM PREOUT BOARD

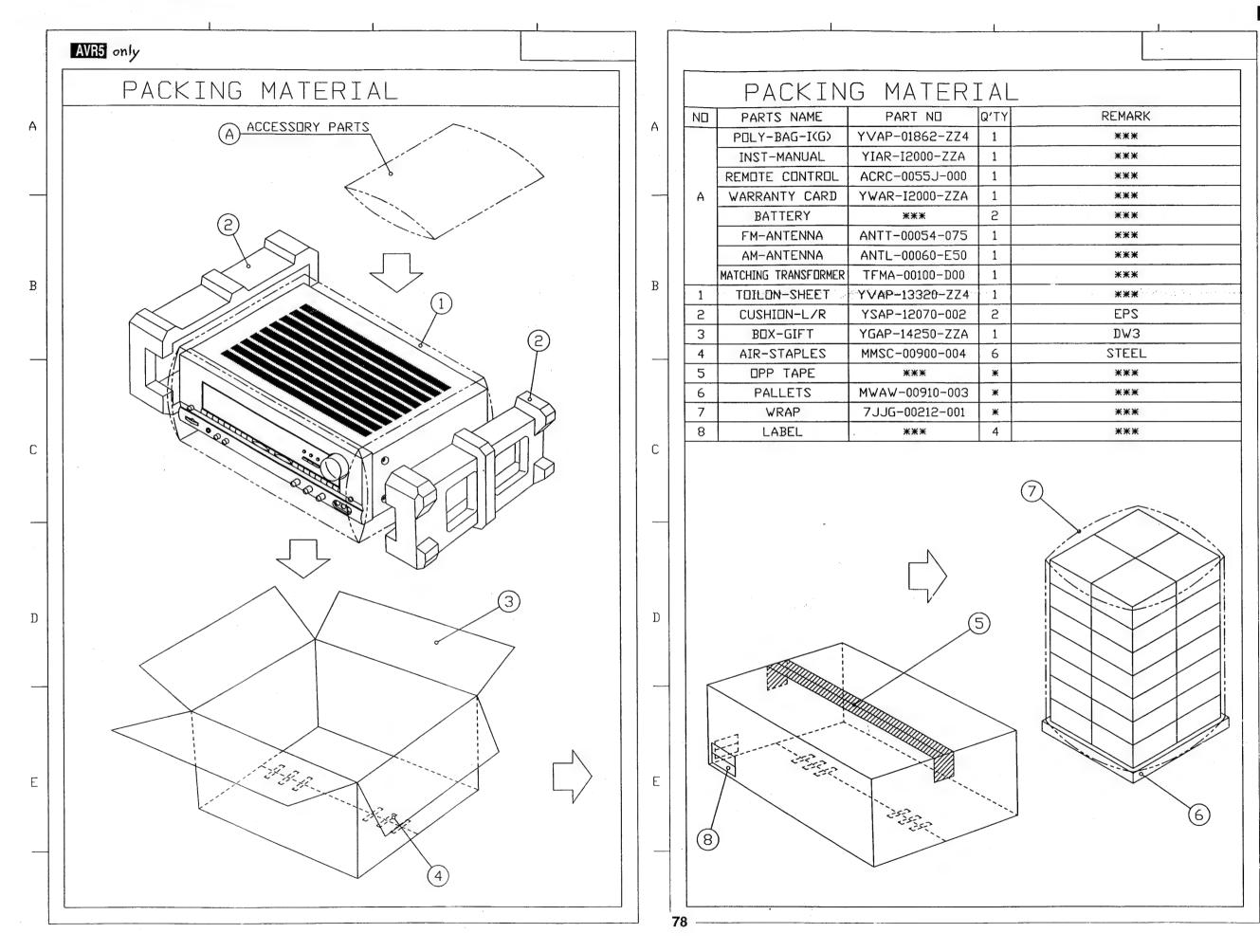


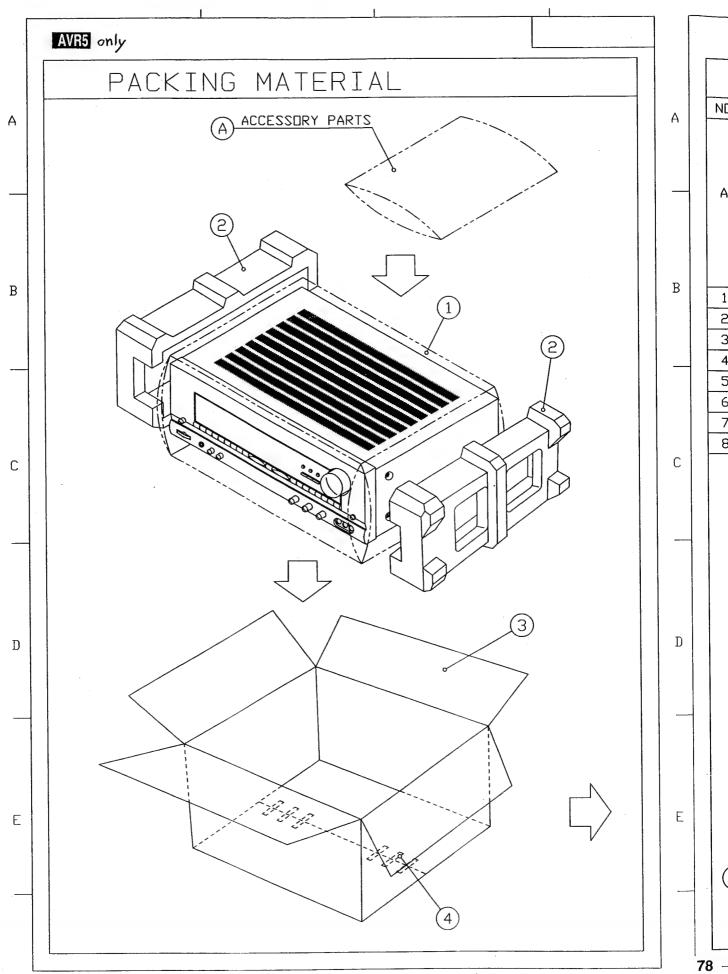
AVR5/AVR18RDS





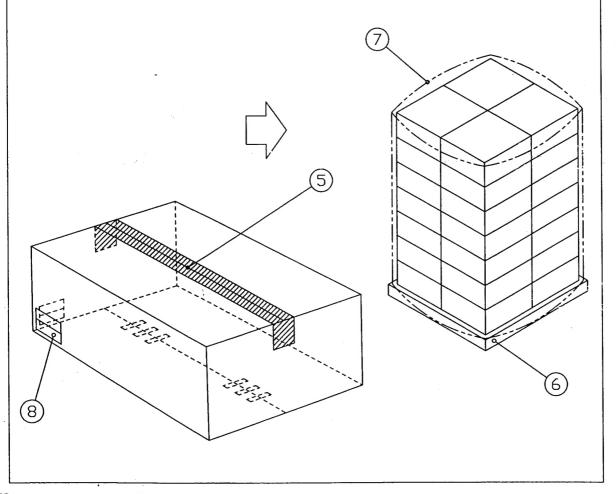
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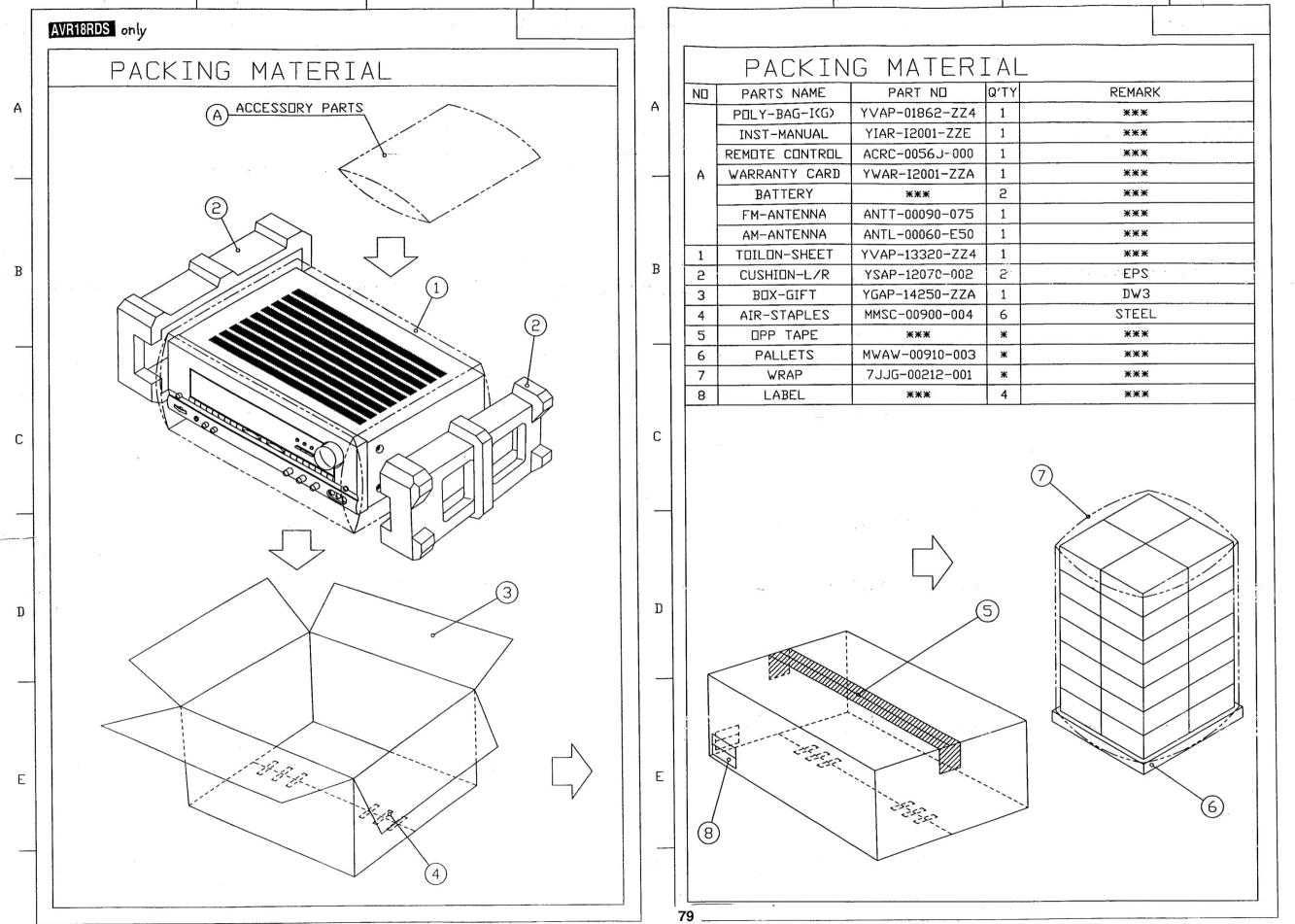
NE

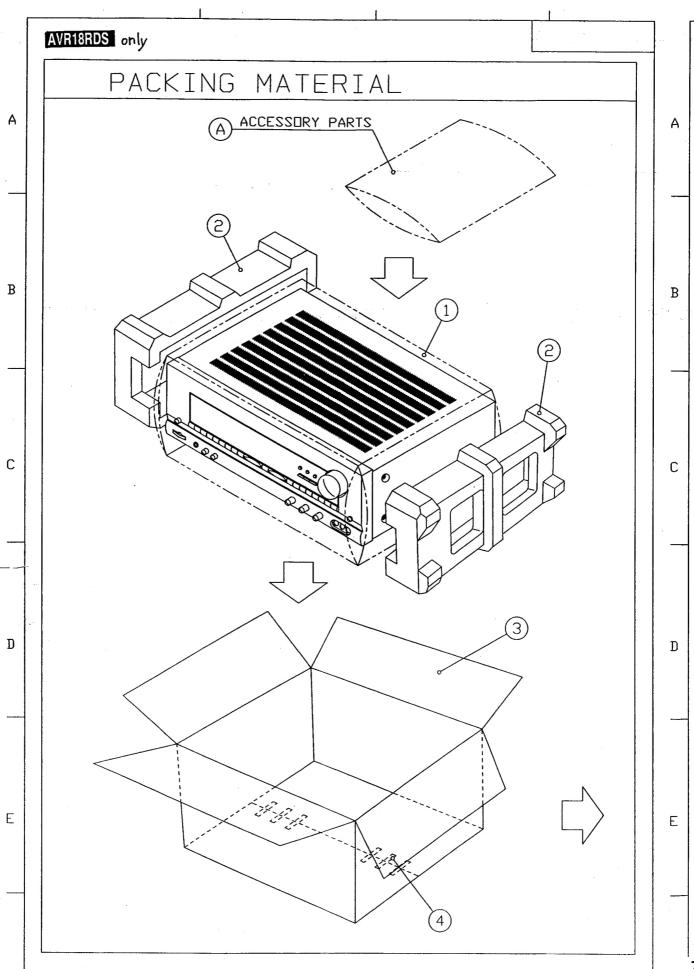
PACKING MATERIAL							
NO	PARTS NAME	PART NO	Q'TY	REMARK			
	POLY-BAG-I(G)	YVAP-01862-ZZ4	1	***			
	INST-MANUAL	YIAR-I2000-ZZA	1	***			
	REMOTE CONTROL	ACRC-0055J-000	1	***			
Α	WARRANTY CARD	YWAR-I2000-ZZA	1	***			
	BATTERY	***	2	***			
	FM-ANTENNA	ANTT-00054-075	1	***			
	AM-ANTENNA	ANTL-00060-E50	1	***			
	MATCHING TRANSFORMER	TFMA-00100-D00	1	***			
1	TOILON-SHEET	YVAP-13320-ZZ4	1	***			
2	CUSHION-L/R	YSAP-12070-002	5	EPS			
3	BDX-GIFT	YGAP-14250-ZZA	1	DW3			
4	AIR-STAPLES	MMSC-00900-004	6	STEEL			
5	OPP TAPE	***	*	***			
6	PALLETS	MWAW-00910-003	*	***			
7	WRAP	7JJG-00212-001	*	***			
8	LABEL	. ***	4	***			



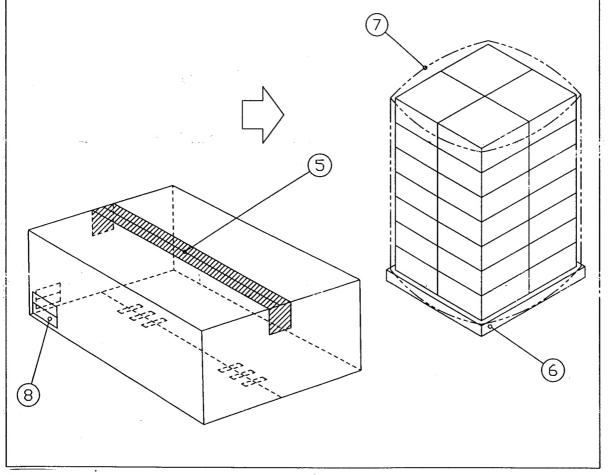
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R5/AVR18RDS





PACKING MATERIAL						
NO	PARTS NAME	PART NO	Q'TY	REMARK		
A	POLY-BAG-I(G)	YVAP-01862-ZZ4	1	***		
	INST-MANUAL	YIAR-I2001-ZZE	1	***		
	REMOTE CONTROL	ACRC-0056J-000	1	***		
	WARRANTY CARD	YWAR-I2001-ZZA	1	***		
	BATTERY	***	2	***		
	FM-ANTENNA	ANTT-00090-075	1	***		
	AM-ANTENNA	ANTL-00060-E50	1	***		
1	TOILON-SHEET	YVAP-13320-ZZ4	1	***		
2	CUSHION-L/R	YSAP-12070-002	2	Teles PEPS To the T		
3	BOX-GIFT	YGAP-14250-ZZA	1	DW3		
4	AIR-STAPLES	MMSC-00900-004	6	STEEL		
5	OPP TAPE	***	*	***		
6	PALLETS	MWAW-00910-003	*	***		
7	WRAP	7JJG-00212-001	*	***		
8	LABEL	***	4	***		



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